OTAKE 7090VT

MODEL

SERVICE MANUAL

SPECIFICATIONS

PICTURE SIZE	32 inch
SYSTEM	PAL
FREQUENCY RANGE: VHF(L)	A - C ch
VHF(H)	D - H2 ch
UHF	21 - 69 ch
MAXIMUM SENSITIVITY: VHF	20 dB
UHF	25 dB
INTERMEDIATE FREQUENCY:	
Picture IF Carrier Frequency	38.9 MHz
Color Sub Carrier Frequency	34.47 MHz
Sound IF Carrier Frequency	33.4 MHz
SOUND INTERMEDIATE FREQUENCY	5.5 MHz
MAXIMUM OUTPUT POWER	5.0 W
10% THD OUTPUT POWER	4.0 W
SPEAKER	4 ohm
POWER SOURCE	AC 220V

IMPORTANT

*USE AN ISOLATION TRANSFORMER WHEN PERFORMING ANY SERVICE ON THIS CHASSIS.

*WHEN REMOVING A PCB OR RELATED COMPONENT, AFTER UNFASTENING OR CHANGING WIRE, BE SURE TO PUT WIRE BACK IN ITS ORIGINAL POSITION.

*INFERIOR SILICON GREASE CAN DAMAGE IC's AND TRANSISTORS.
WHEN REPLACING AN IC's OR TRANSISTORS, USE ONLY SPECIFIED SILICON GREASE (YG6260M).
REMOVE ALL OLD SILICON BEFORE APPLYING NEW SILICON.

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ELECTRICAL ADJUSTMENTS

1. BEFORE MAKING ELECTRICAL ADJUSTMENT

Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

1-1: Prepare the following measurement tools for electrical adjustments.

1. Oscilloscope (2 Channel Type)
2. Digital Voltmeter
3. Color Bar Generator
4. Sweep-Marker Generator
5. VIF Unit
6. AC Voltmeter
7. Frequency Counter
8. Distortion Meter

2. BASIC ADJUSTMENTS

2-1: VIF AND AFT

NOTE
Connect input and output terminal of the Sweep-Marker Generator to circuit as shown in **Fig. 2-1-a**, then adjust it.

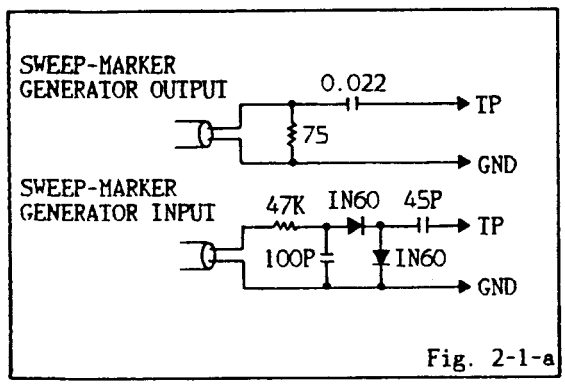
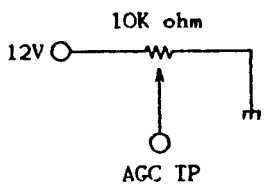


Fig. 2-1-a

1. Connect output terminal of the Sweep-Marker Generator to IP202.
2. Connect input terminal of the Sweep-Marker Generator to IP203.
3. Connect the 10K ohm variable resistor to IF AGC terminal (IP201), 12V line and ground, then adjust to make the waveform of the oscilloscope readable.



4. Adjust **L201** until the waveform marker (38.9MHz) becomes as shown in **Fig. 2-1-b.**

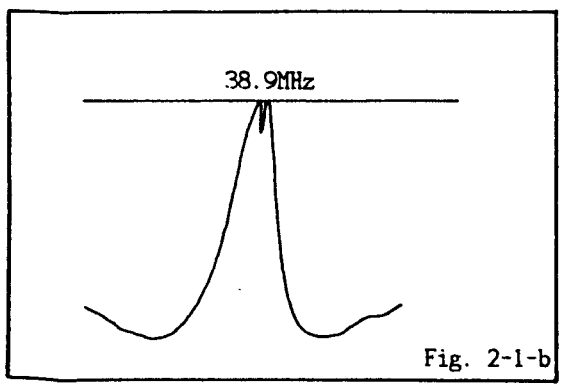


Fig. 2-1-b

5. Disconnect output terminal of the Sweep-Marker Generator from TP202, then connect it to TP of the Tuner Pack. (Connect the 2.7K ohm resistor between them.)
6. Disconnect input terminal of the Sweep-Marker Generator from TP203, then connect it to TP208.
7. Adjust **L211** and **L216** until the waveform markers (32.4MHz, 40.4MHz) becomes as show in **Fig. 2-1-c.**

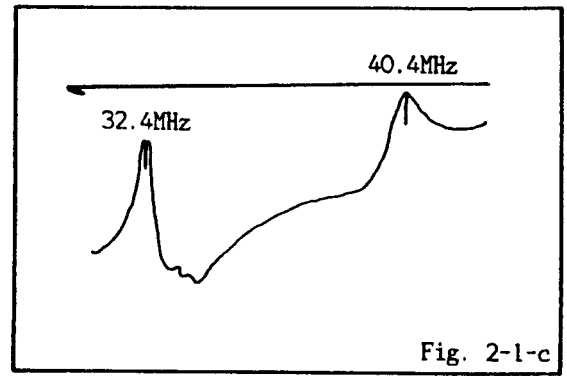


Fig. 2-1-c

8. Disconnect input terminal of the Sweep-Marker Generator from IP208, then connect it to TP203.
9. Connect the 1K ohm resistor between TP204 and ground.
10. Confirm the waveform should be as shown in **Fig. 2-1-d.**

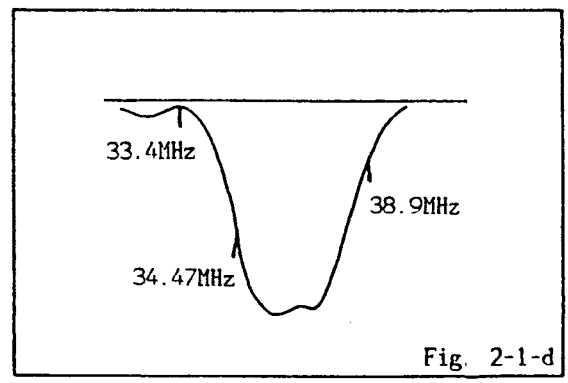


Fig. 2-1-d

2-2: RF AGC

NOTE
Adjust after performing adjustments in section 2-1.

2-2-A: In case of weak electric field.

1. Receive the noisy channel.
2. Adjust **VR201** until noise is at minimum.
3. Change the channel, confirm other channels are normal.

2-2-B: In case of strong electric field. (Diagonal streaks indicate radio frequency interference.)

1. Adjust **VR201** until diagonal streaks are at minimum.
2. If there is still a problem after adjusting VR201, install an attenuator to the antenna terminals, then repeat step 1.
3. Confirm noise will appear.
4. Change the channel, confirm other channels are normal.

ELECTRICAL ADJUSTMENTS

2-3: CUT OFF

1. Receive the Color Bar Pattern.
2. Adjust remote control until the bright and contrast controls are at minimum position.
3. Connect the oscilloscope to TP24.
4. Adjust the Screen control until voltage is DC140~145V. **(Refer to Fig. 2-3.)**

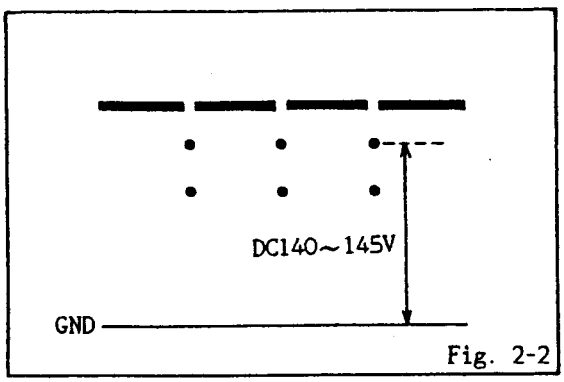


Fig. 2-2

2-4: FOCUS

1. Receive the broadcasting signal.
2. Adjust the Focus control until is distinct.

2-5: VERTICAL AND HORIZONTAL SIZE

1. Receive the Crosshatch Pattern from the Color Bar Generator.
2. Adjust the Bright and Contrast controls until the crosshatch pattern is distinct.
3. Adjust **VR401 (V)** and **VR471 (H)** until the center of crosshatch is square.
4. Receive broadcasting signal, then confirm picture is normal

2-6: HORIZONTAL POSITION

1. Receive the Color Bar Pattern.
2. Adjust **VR402** until the color width of both of screen edges are equal.
3. Receive broadcasting signal, then confirm picture is normal.

2-7: SIDE PCC

1. Receive the Crosshatch Pattern from the Color Bar Generator.
2. Adjust **VR472** until the right and left 3rd vertical line is straight.

2-8: HUE DELAY

1. Receive the DEM Pattern.
2. Connect CH-1 on the oscilloscope to pin 2 of IC901 and CH-2 to pin 6 of IC901.
3. Adjust **L606** and **VR614** until the waveform is straight line. **(Refer to Fig. 2-3)**

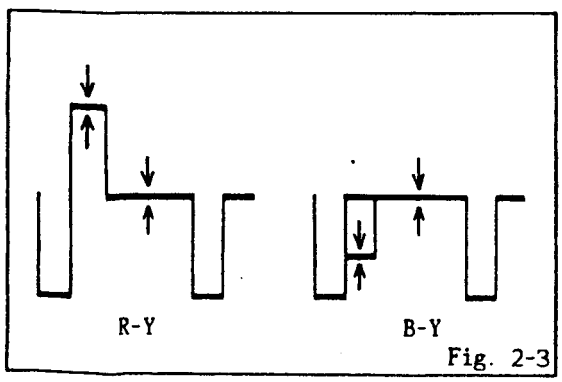


Fig. 2-3

2-9: SUB BRIGHT

1. Receive the Monochrome Pattern.
2. Press the NORMAL button on the remote control unit.
3. Adjust **VR612** until 0% of gray scale is dim.
4. Receive the T'TEXT Pattern.
5. Adjust **VR901** until the RGB black level is as same as the RF black level.

2-10: SUB COLOR

1. Receive the Color Bar Pattern.
2. Press the NORMAL button on the remote control unit.
3. Connect the oscilloscope to TP22.
4. Adjust **VR101** until red color level is 75%.

2-11: SOUND IF DETECTION

2-11-A: For 5.5MHz

1. Receive the Mult-channel TV broadcasting signal.
2. Connect the oscilloscope to TP033.
3. Adjust **L034** until the waveform is maximum.
4. Connect the distortion meter to pin 1 of J705.
5. Adjust **L034** until the distortion rate is minimum.

2-11-B: For 5.74MHz

1. Receive the Mult-channel TV broadcasting signal.
2. Connect the oscilloscope to TP034.
3. Adjust **L032** until the waveform is maximum.
4. Connect the distortion meter to pin 3 of J705.
5. Adjust **L032** until the distortion rate is minimum.

2-12: PILOT DETECTION

1. Receive the Mult-channel TV broadcasting signal.
2. Connect the oscilloscope to pin 7 of IC031.
3. Adjust **L033** and **L035** until the waveform is maximum.

2-13: PILOT TONE

1. Receive the stereo broadcasting signal.
2. Connect the oscilloscope to TP031.
3. Adjust **VR033** until the waveform is maximum. (More than 100mVp-p)
4. Adjust **VR034** until the waveform is maximum. (More than 100mVp-p)

2-14: PLL CENTER FREQUENCY

1. Receive the Monochrome Pattern.
2. Input a sine wave of 196Hz (100mVp-p) to TP031. (Connect 50V1μF capacitor between them.)
3. Connect the digital voltmeter to pin 10 of IC031.
4. Adjust **VR031** until the voltage is DC6.5V.

2-15: STEREO SEPARATION

1. Receive the stereo broadcasting signal.
2. Connect the AC voltmeter to L-ch of the audio out.
3. Adjust **VR032** until output of L-ch is minimum.

ELECTRICAL ADJUSTMENTS

3. PURITY AND CONVERGENCE ADJUSTMENT

NOTE
1. Turn the unit on and let it warm up for at least 30 minutes before performing the following adjustments.
2. Place the CRT surface facing east and west to reduce the terrestrial magnetism.
3. Power ON the unit and demagnetize with a Degauss Coil.

3-1: STATIC CONVERGENCE (ROUGH ADJUSTMENT)

1. Tighten the screw for the magnet. Refer to the adjusted CRT for the position. **(Refer to Fig. 3-1)**

[If the deflection yoke and magnet are in one body, untighten the screw for the body.]

2. Receive the green raster pattern from color bar pattern.
3. Slide the deflection yoke until it touches the funnel side of the CRT.
4. Adjust center of screen to green, with red and blue on the sides, using the pair of purity magnets.
5. Switch to change the color bar generator from the green raster pattern to the crosshatch pattern.
6. Combine red and blue of the 3 colors crosshatch pattern on the center of the screen by adjusting the pair of 4 pole magnets.
7. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.
8. Adjust the crosshatch pattern to change to white by repeating steps 6 and 7.

3-2: PURITY

NOTE
Make these adjustments after doing adjustments in section 3-1.

1. Receive the green raster pattern from color bar generator.
2. Adjust the pair of purity magnets with the same angle to change to green on the screen center.
   Also, adjust the pair of purity magnets to equal the width of both ends color
3. Move the deflection yoke backward (To neck side) slowly, and stop it at the position when the whole screen is green.
4. Confirm the color concerning to the red and blue.
5. Adjust the slant of the deflection yoke while watching the screen, then tighten the fixing screw.

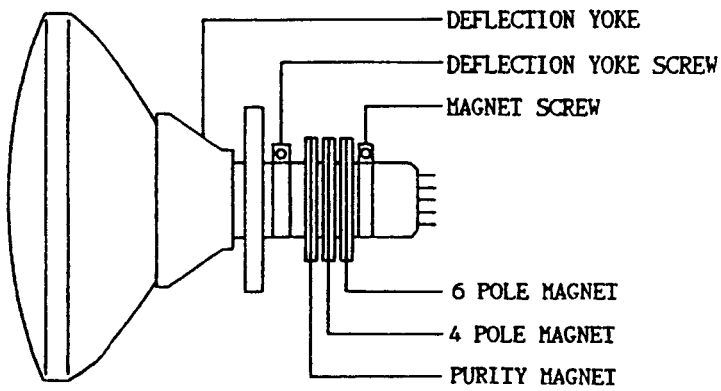


Fig. 3-1

3-3: STATIC CONVERGENCE

NOTE
Make these adjustments after doing adjustments in section 3-2.

1. Receive the crosshatch pattern from color bar generator.
2. Combine red and blue of the 3 colors crosshatch pattern on the center of the screen by adjusting the pair of 4 pole magnets.
3. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.

3-4: DYNAMIC CONVERGENCE

NOTE
Make these adjustments after doing adjustments in section 3-3.

1. Adjust the differences around the screen by moving the deflection yoke upward/downward and to right/left. **(Refer to Fig. 3-2-a)**
2. Insert three wedges between the deflection yoke and CRT funnel to fix the deflection yoke. **(Refer to Fig. 3-2-b)**

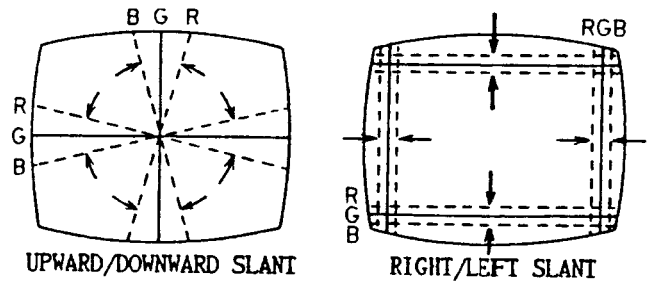
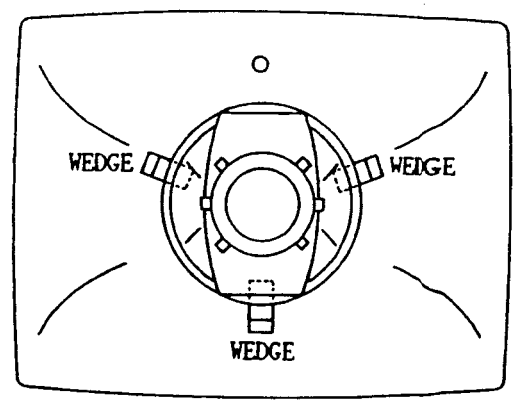


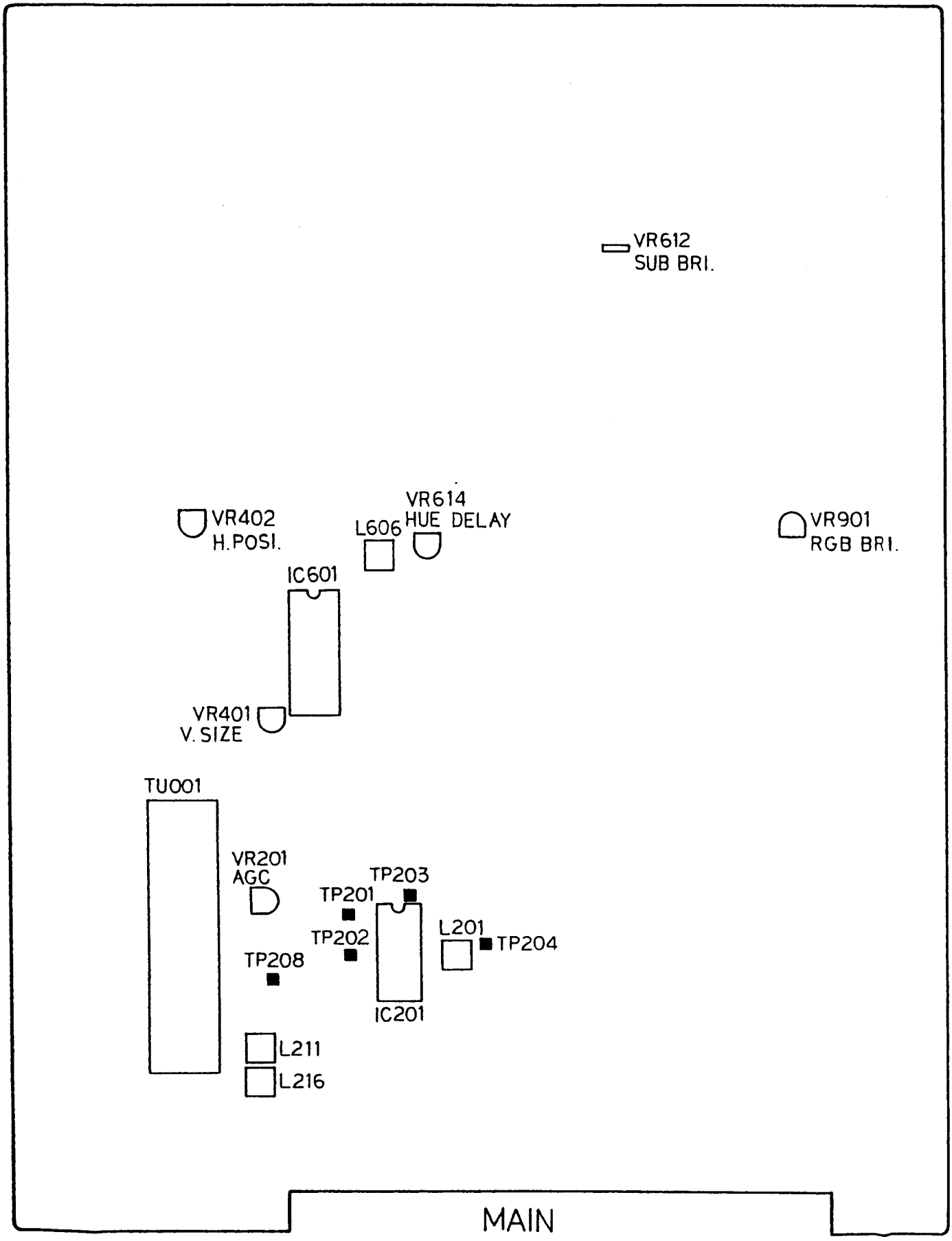
Fig. 3-2-a



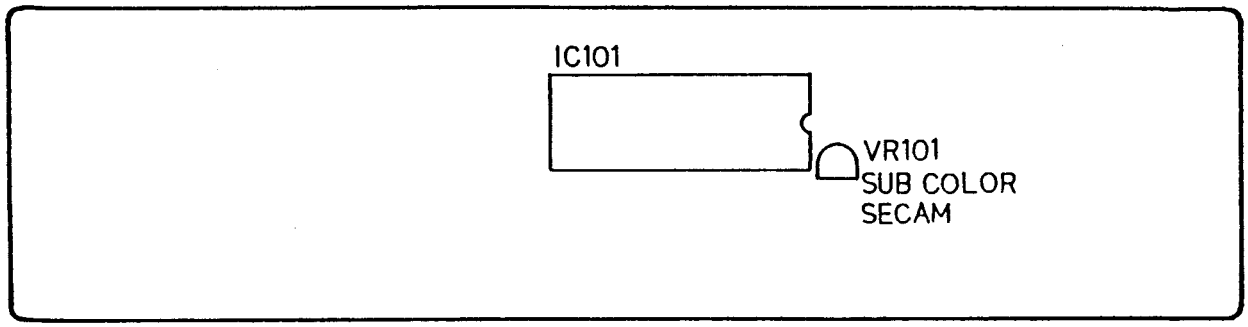
WEDGE POSITION

Fig. 3-2-b

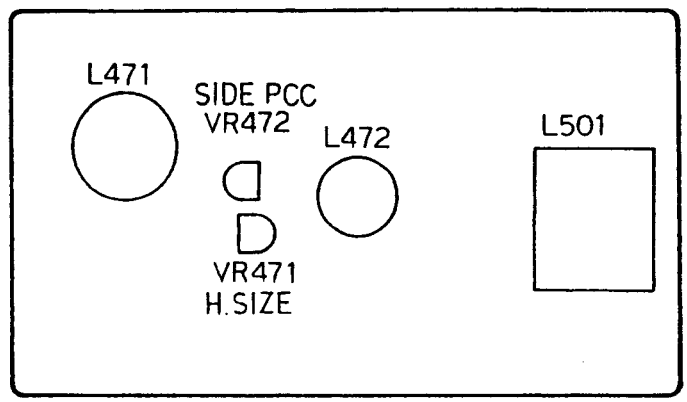
MAJOR COMPONENTS LOCATION GUIDE



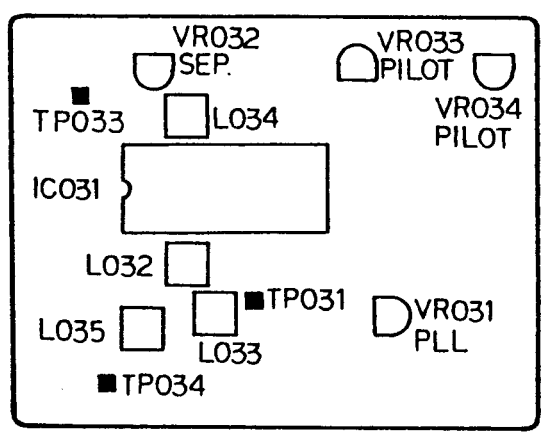
MAJOR COMPONENTS LOCATION GUIDE



MICON

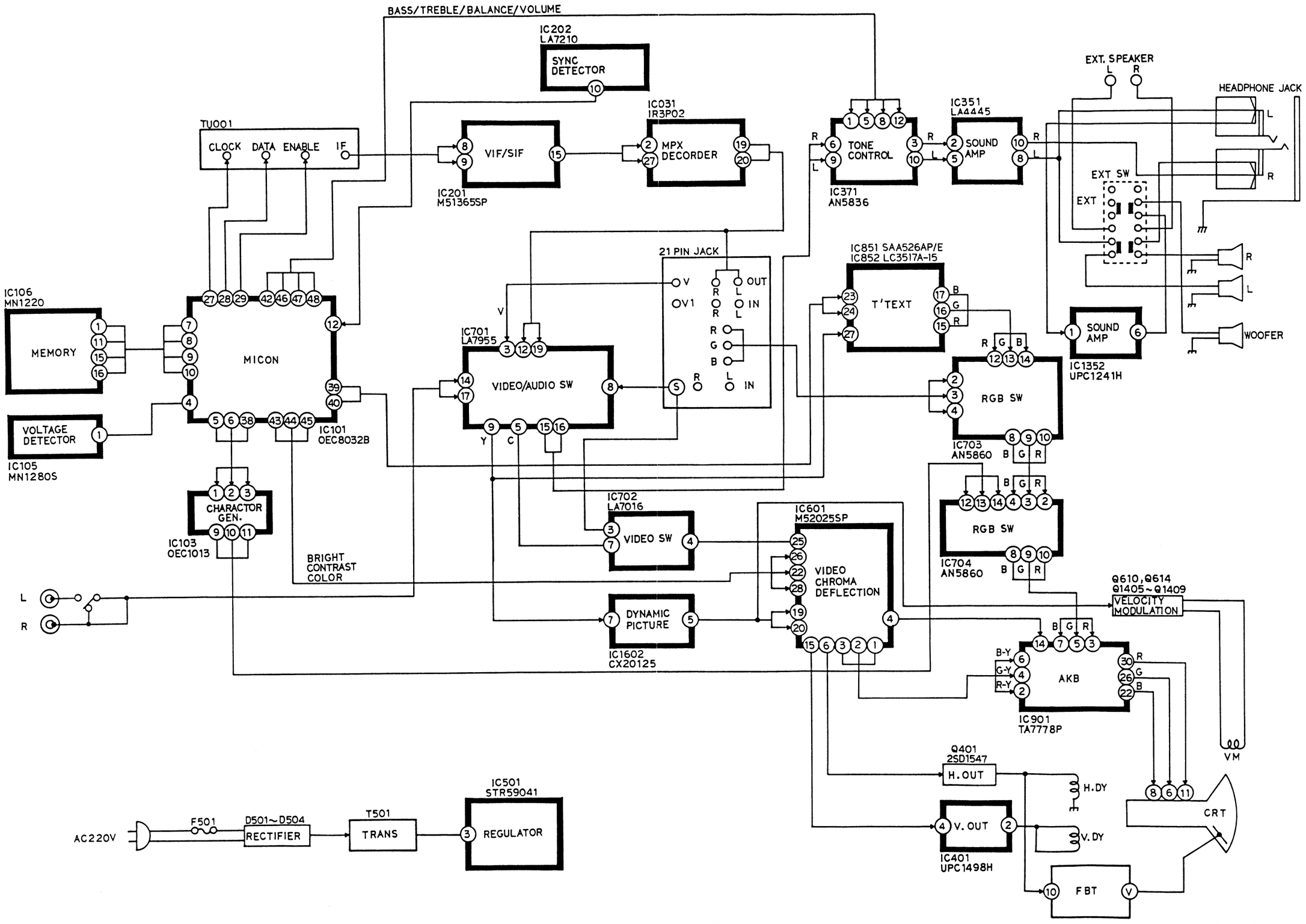


PIN CUSHION



STEREO

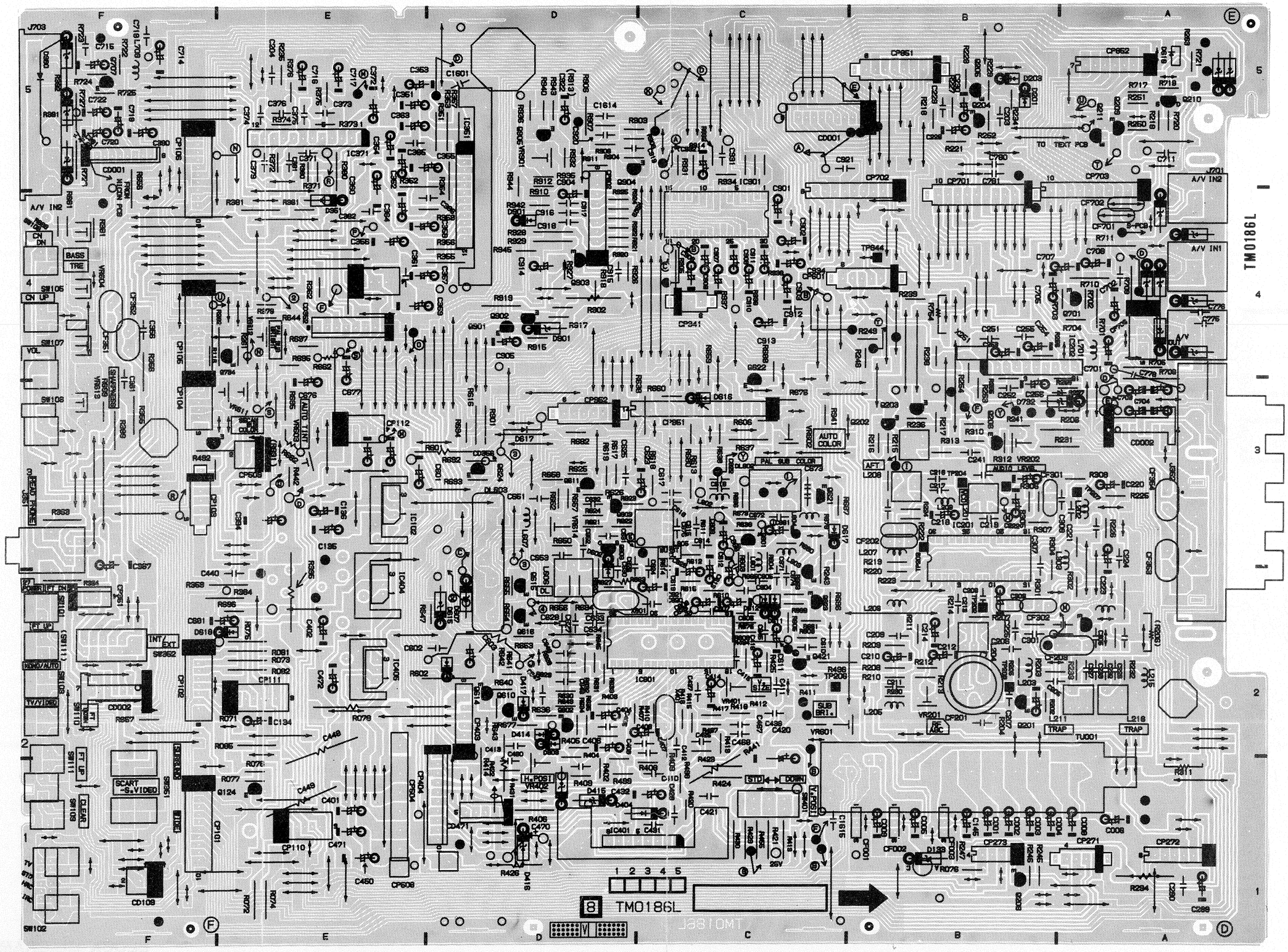
BLOCK DIAGRAM



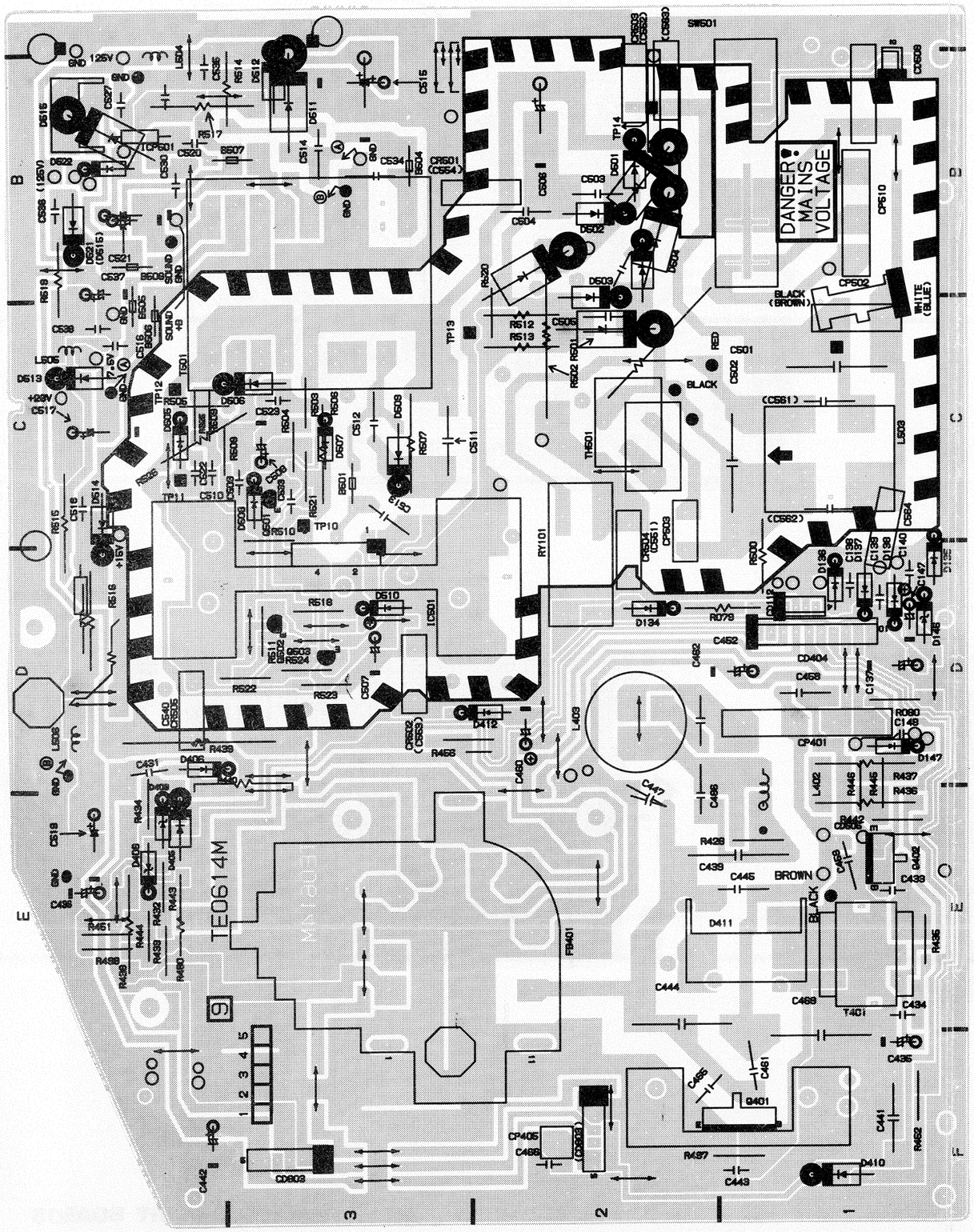
BLOCK DIAGRAM

2-4281

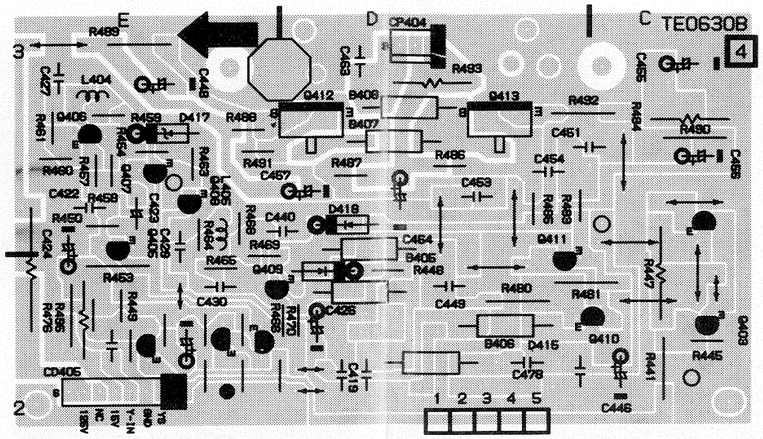
MAIN


TM0186L
TO TEXT PCB
A/V IN2
A/V IN1
TRAP
TRAP
TUNER
SCART -Sw VIDEO
INT
EXT
AUTO COLOR
PAL SUB COLOR
SUB BRI
STD
DOWN
H. POS
V. POS
AUDIO LEVEL
AFT
AGC
BASS
TRE
VOL
BALANCE
CLEAR
TV/VIDEO
CN UP
CN DN
FT UP
FT DN
POWER
HEAD PHONE
MONI PCB
S-PCB
TM0186L

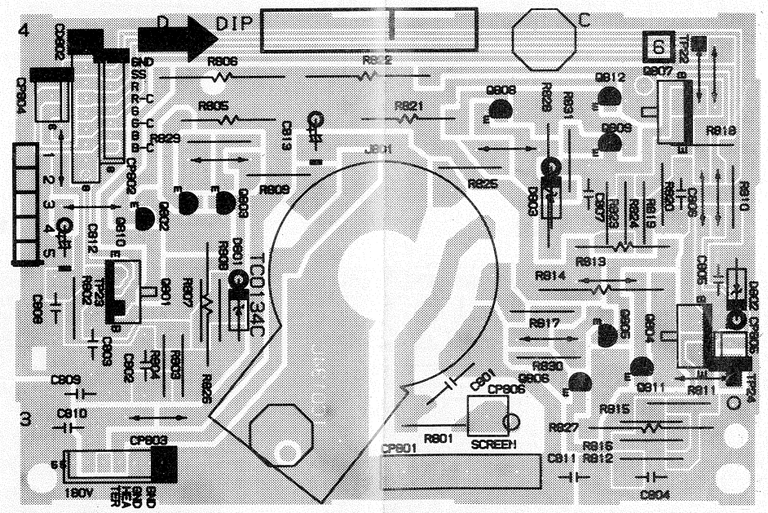
POWER



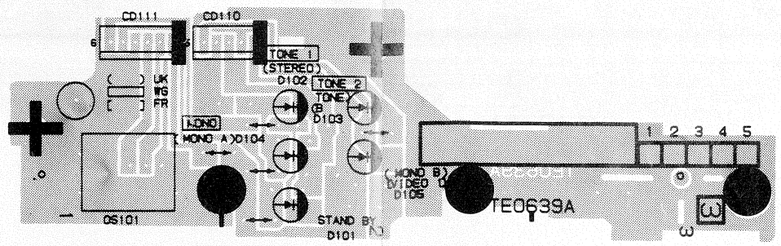
VELOCITY MODULATION



CRT



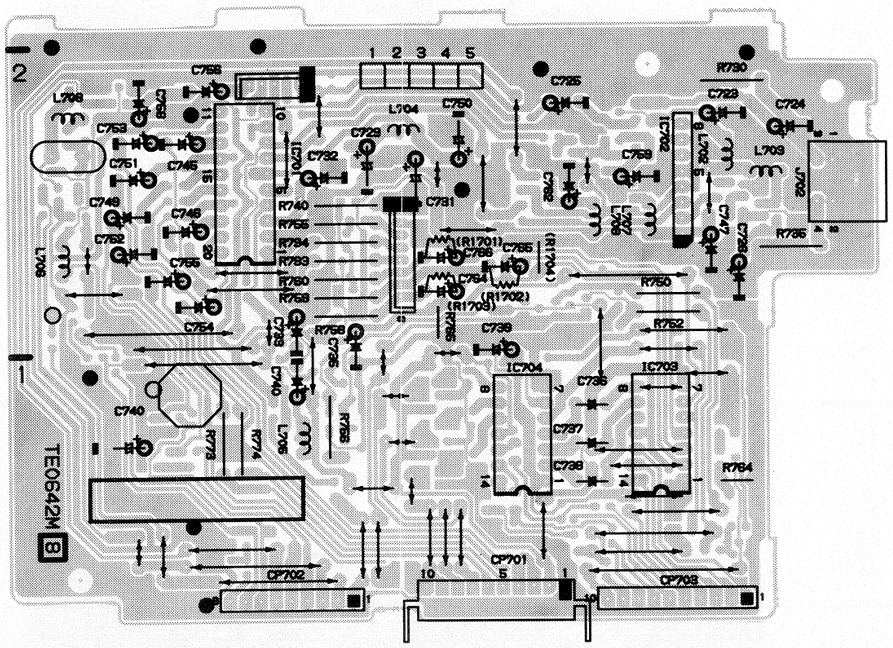
CONTROL



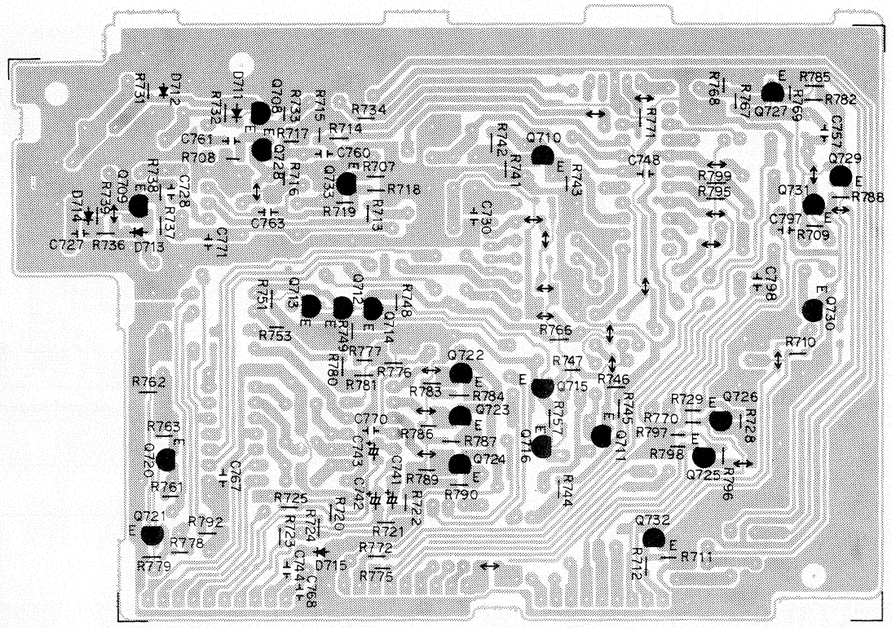
PRINTED CIRCUIT BOARDS

S-VHS

COMPONENT SIDE

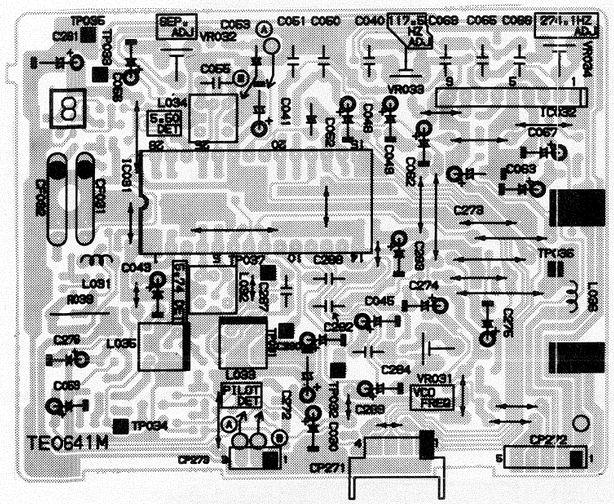


SOLDER SIDE

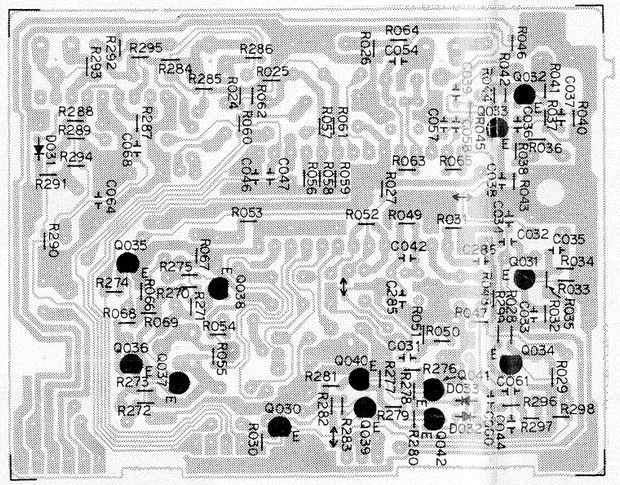


STEREO/SAP

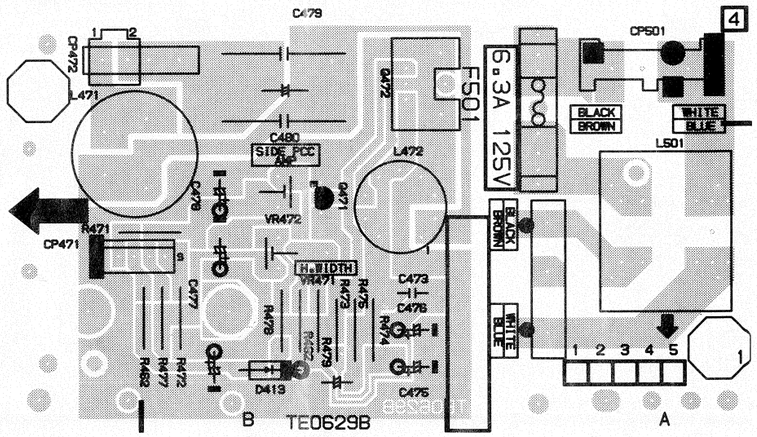
COMPONENT SIDE



SOLDER SIDE



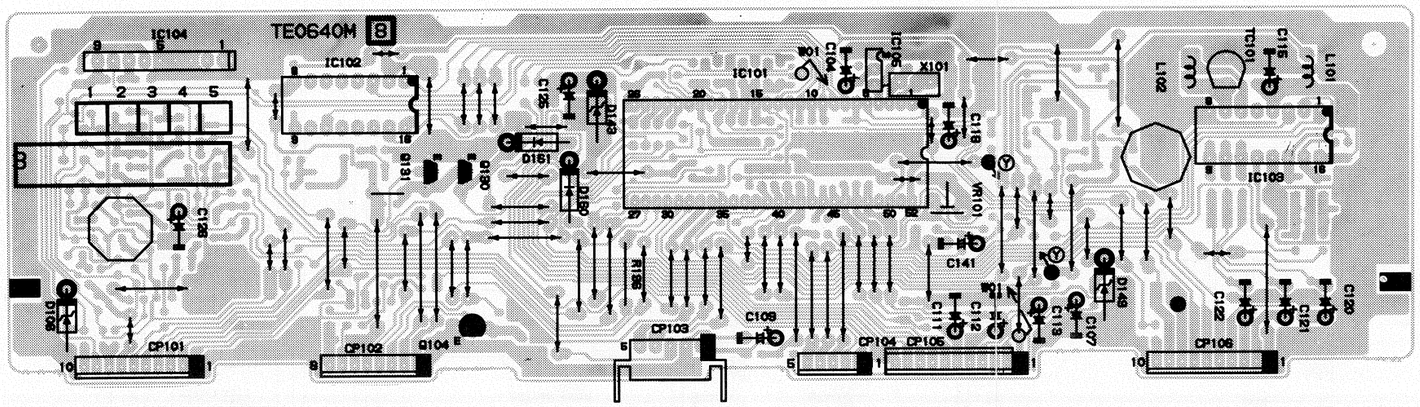
PIN CUSHION



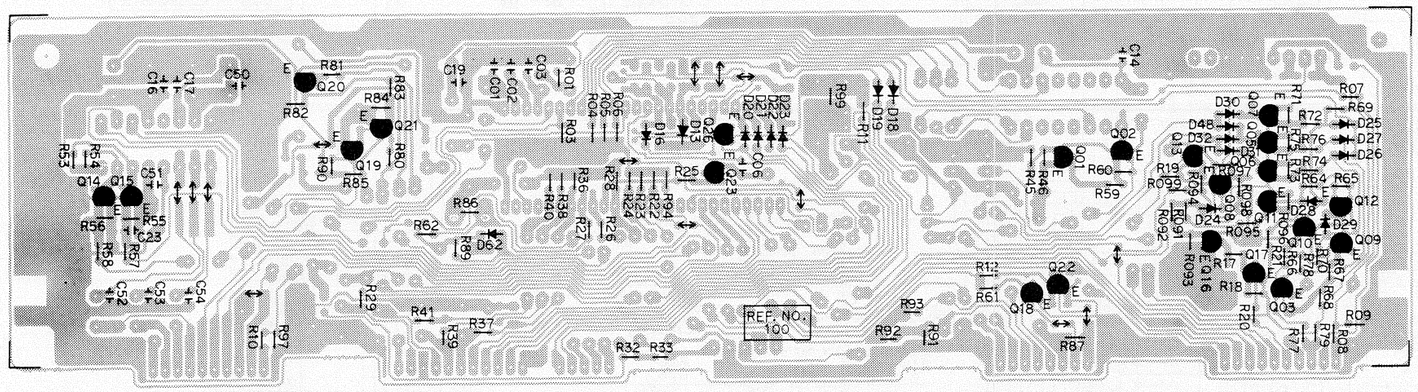
PRINTED CIRCUIT BOARDS

MICON

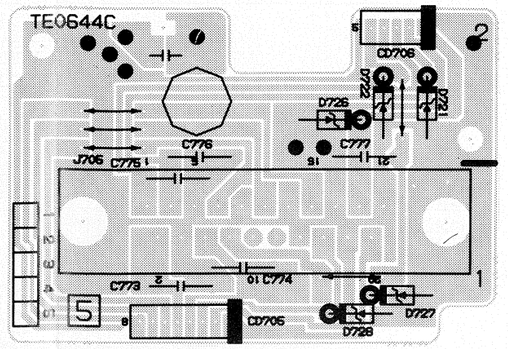
COMPONENT SIDE



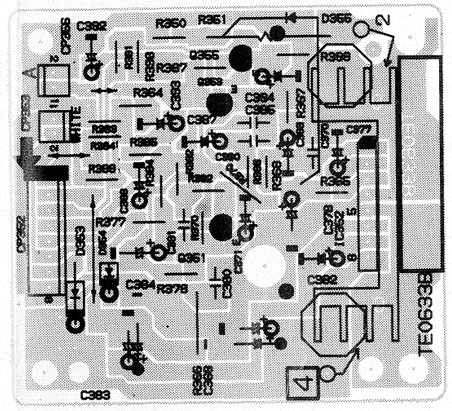
SOLDER SIDE



21PIN

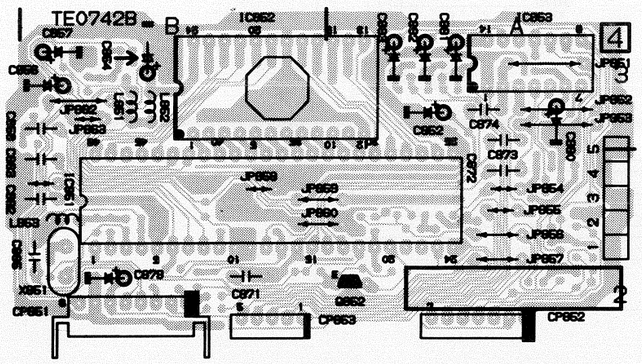


3D AMP

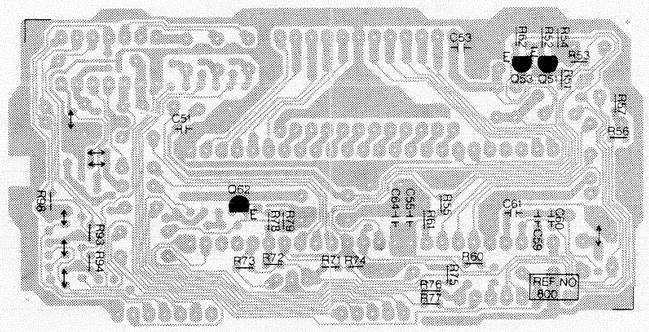


T'TEXT

COMPONENT SIDE

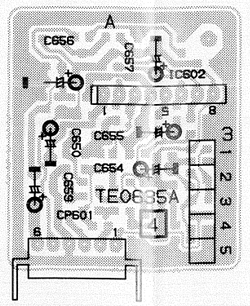


SOLDER SIDE

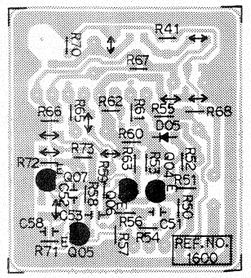


DYNAMIC PICTURE

COMPONENT SIDE

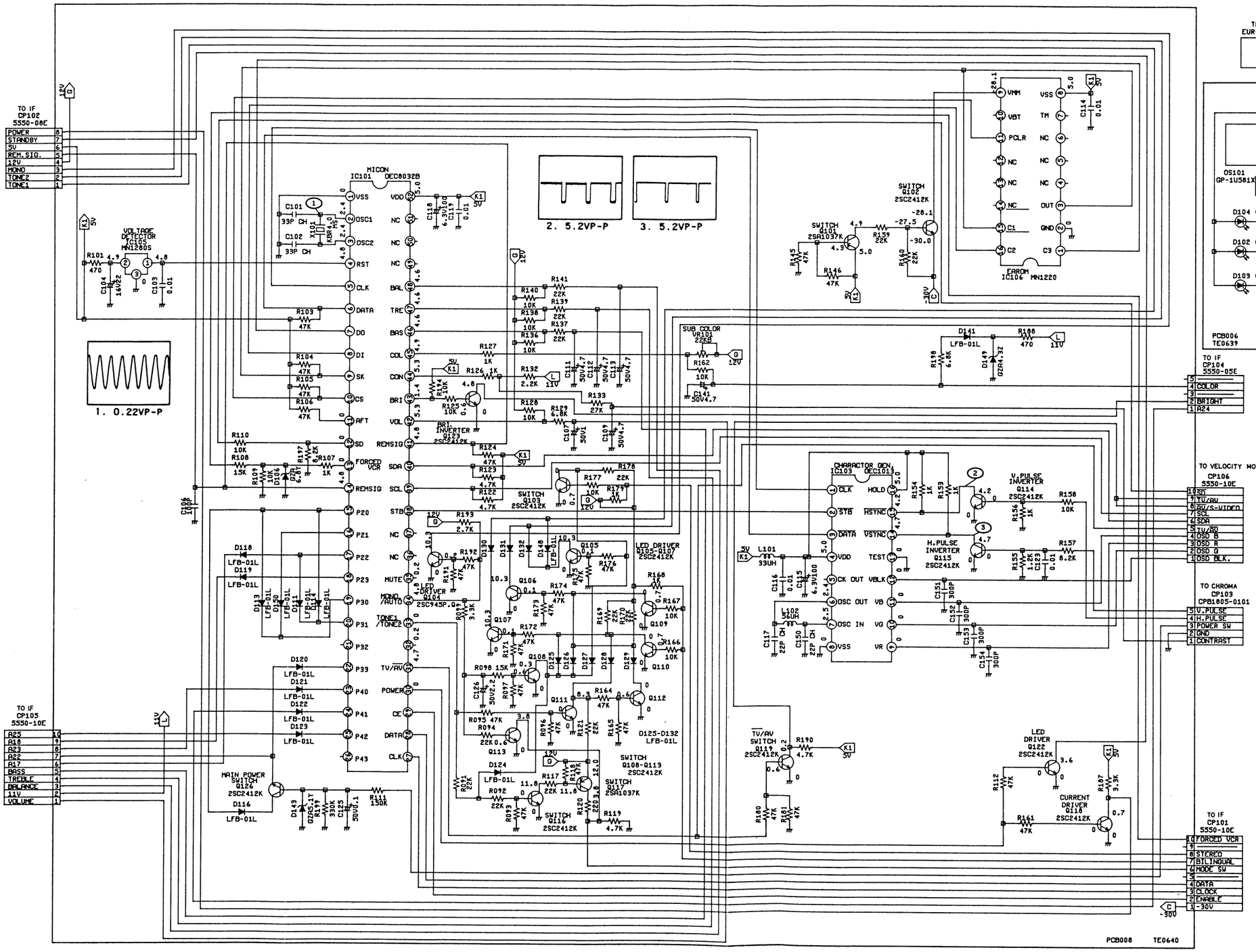


SOLDER SIDE



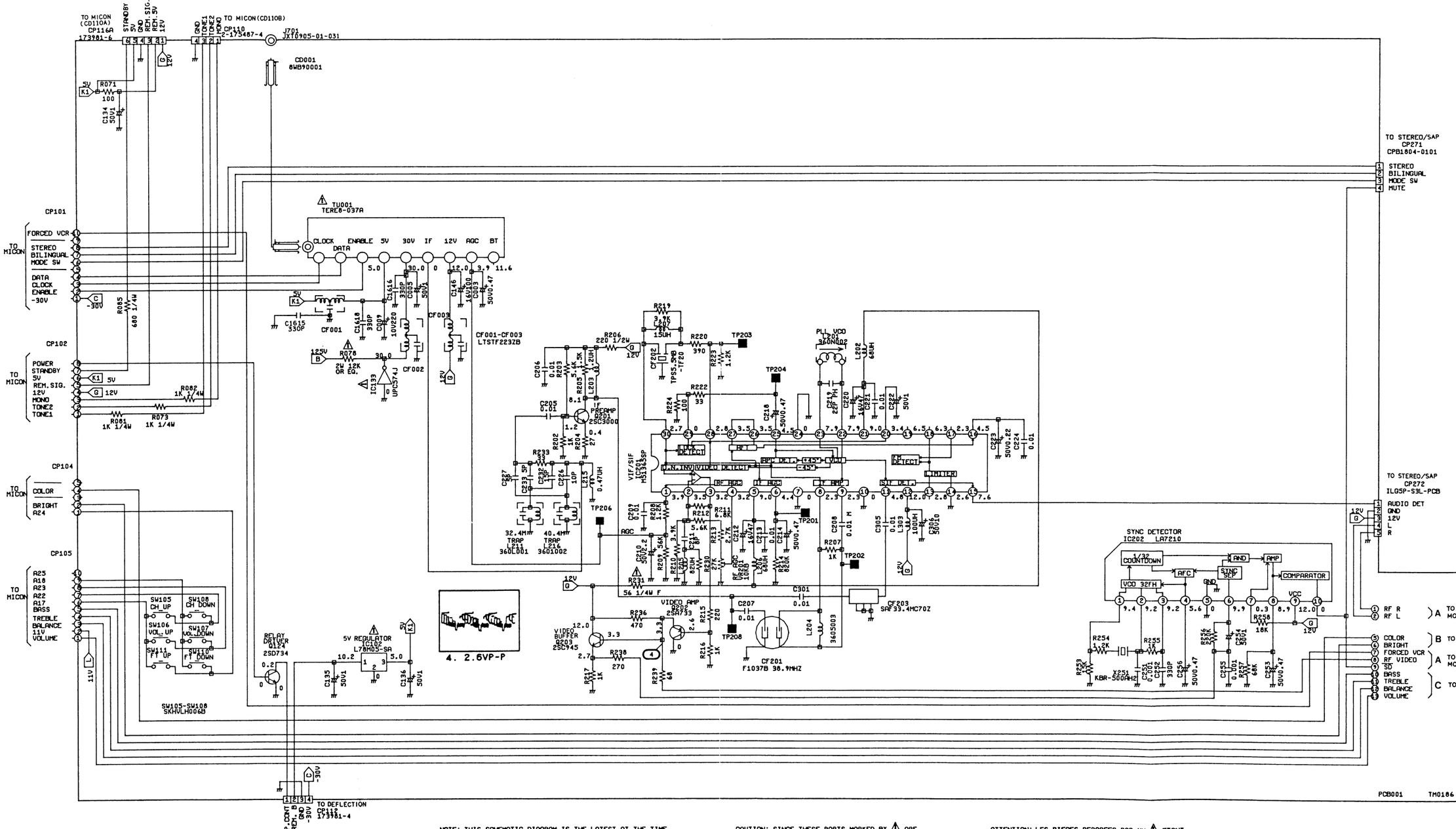
PRINTED CIRCUIT BOARDS

MICON SCHEMATIC DIAGRAM



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

IF SCHEMATIC DIAGRAM



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

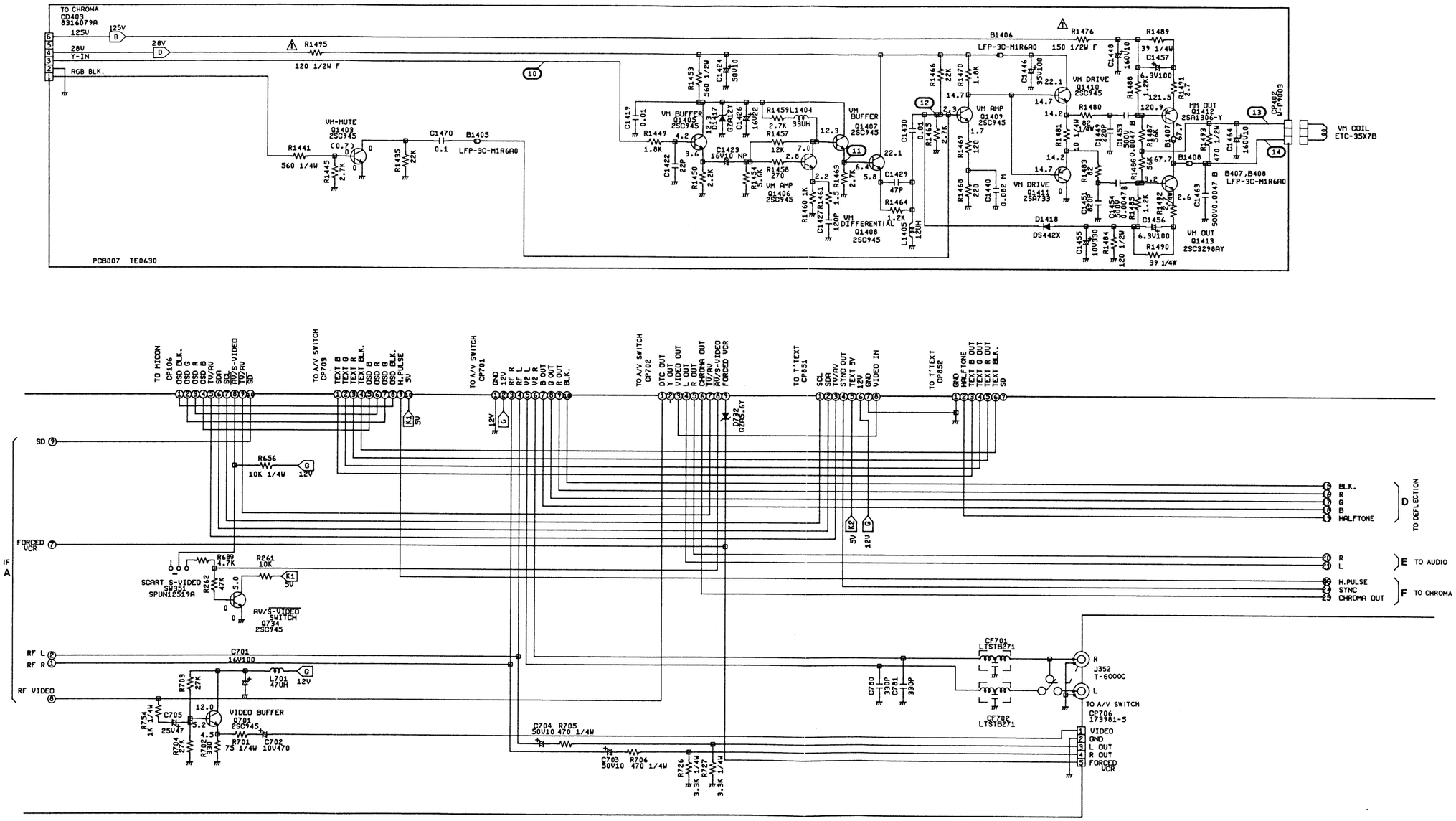
CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY.

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES.

IF SCHEMATIC DIAGRAM

1-1 2078

VELOCITY MODULATION SCHEMATIC DIAGRAM

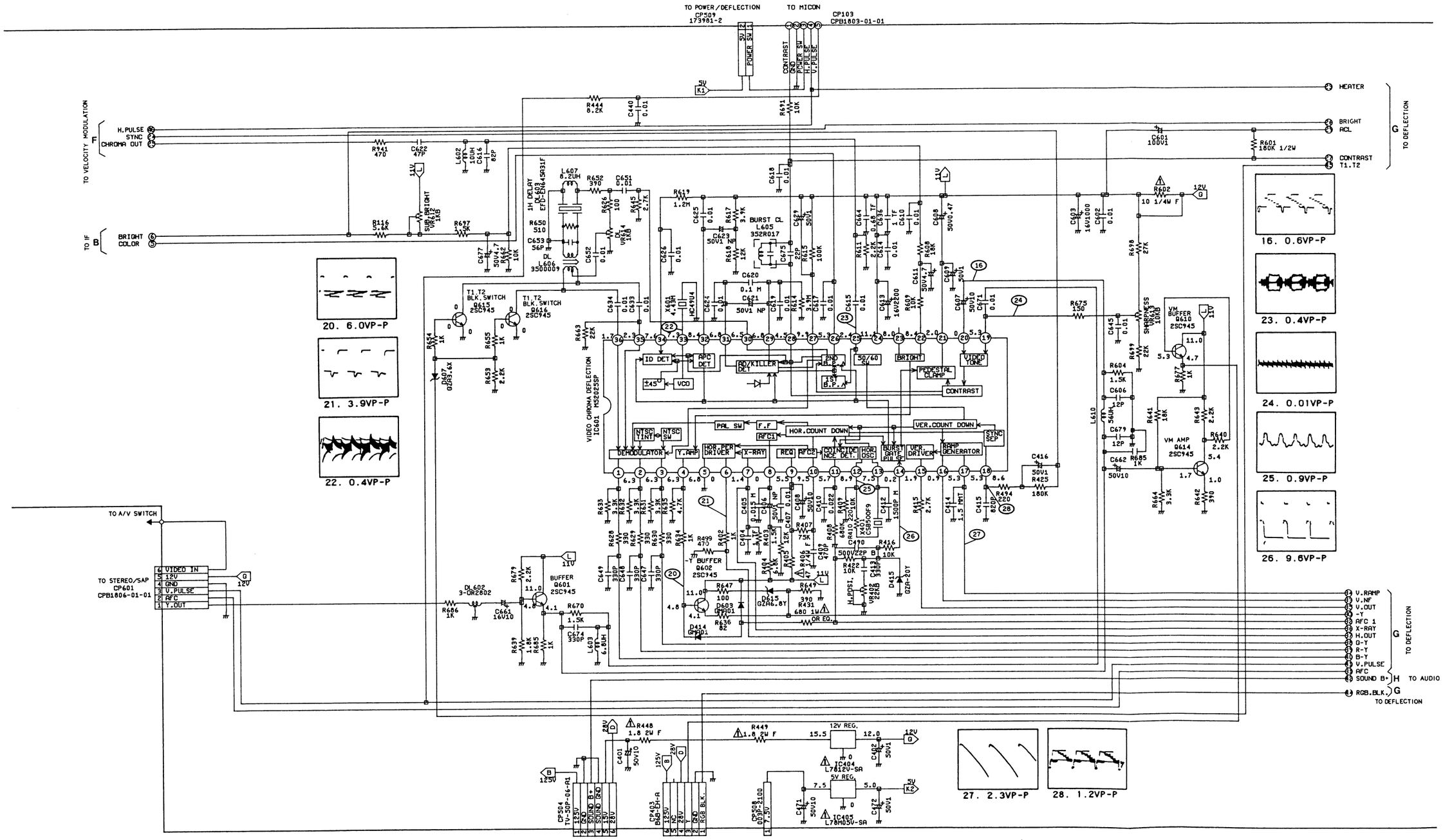


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

VELOCITY MODULATION SCHEMATIC DIAGRAM

1-12079

CHROMA SCHEMATIC DIAGRAM



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

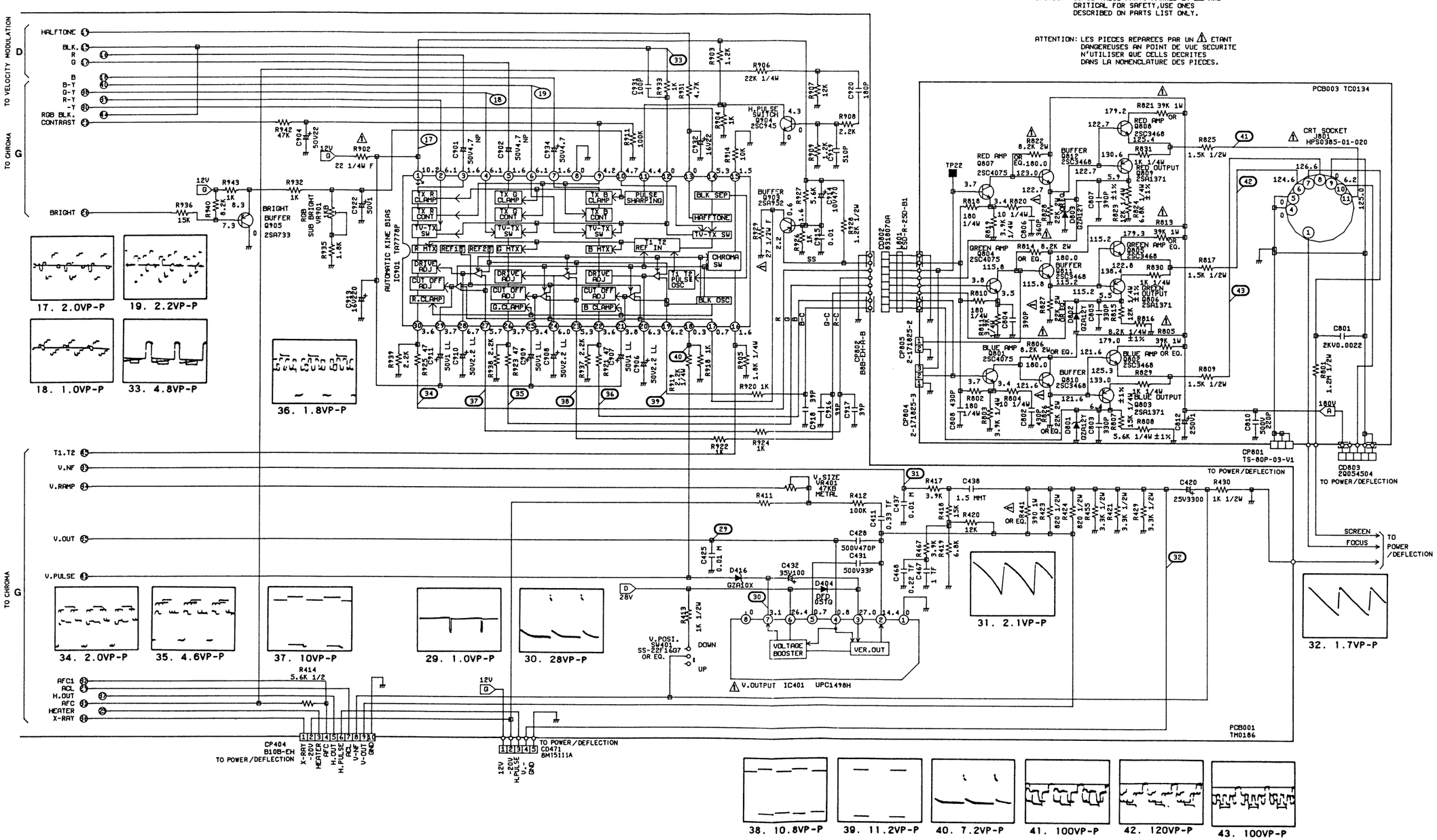
CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY.

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES.

CHROMA SCHEMATIC DIAGRAM

1-12080

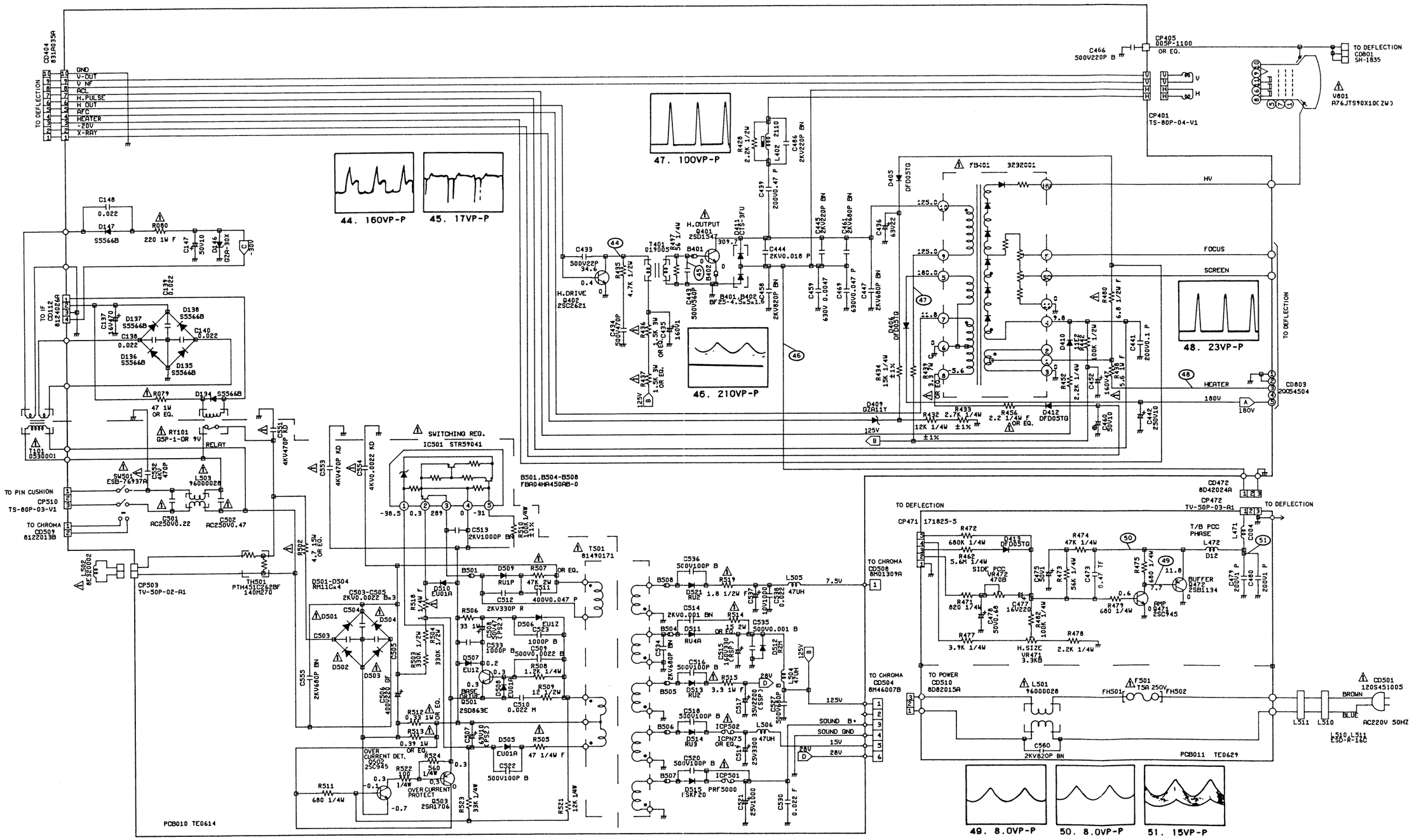
DEFLECTION SCHEMATIC DIAGRAM



DEFLECTION SCHEMATIC DIAGRAM

1-12081

POWER/DEFLECTION SCHEMATIC DIAGRAM



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

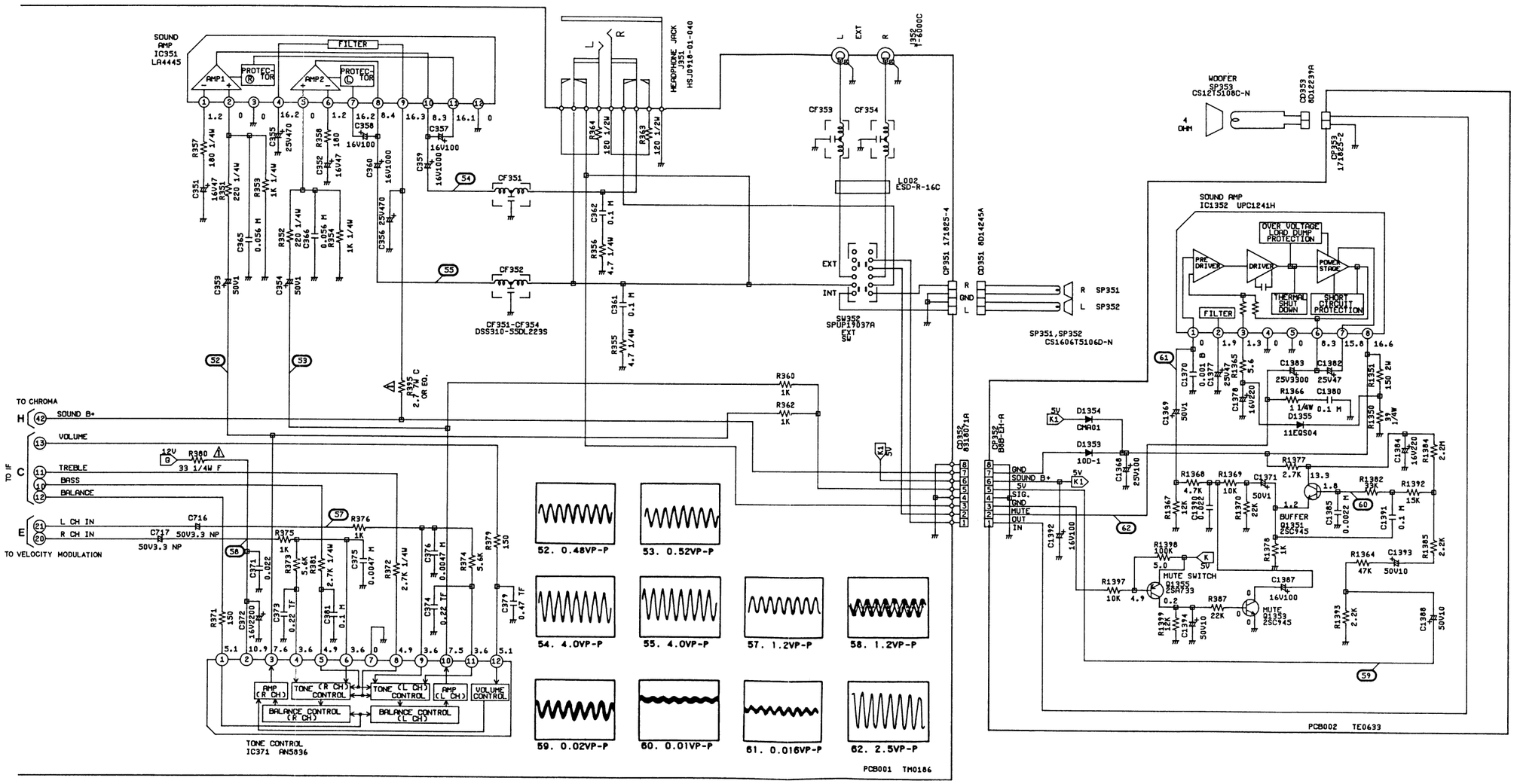
ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES.

CAJTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED ON PARTS LIST ONLY.

POWER/DEFLECTION SCHEMATIC DIAGRAM

1-12082

AUDIO SCHEMATIC DIAGRAM



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

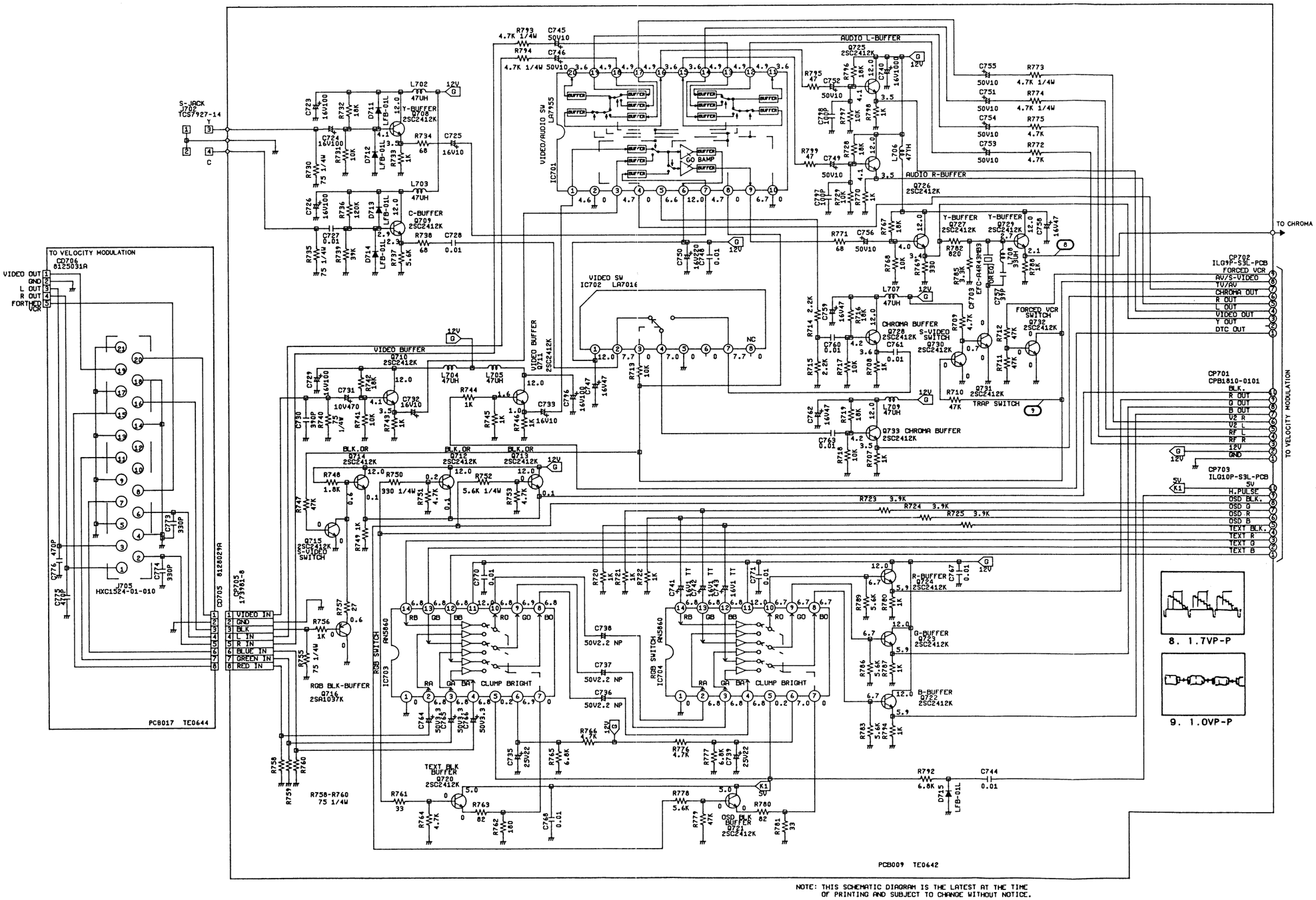
CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY.

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES.

AUDIO SCHEMATIC DIAGRAM

1-12083

A/V SWITCH SCHEMATIC DIAGRAM

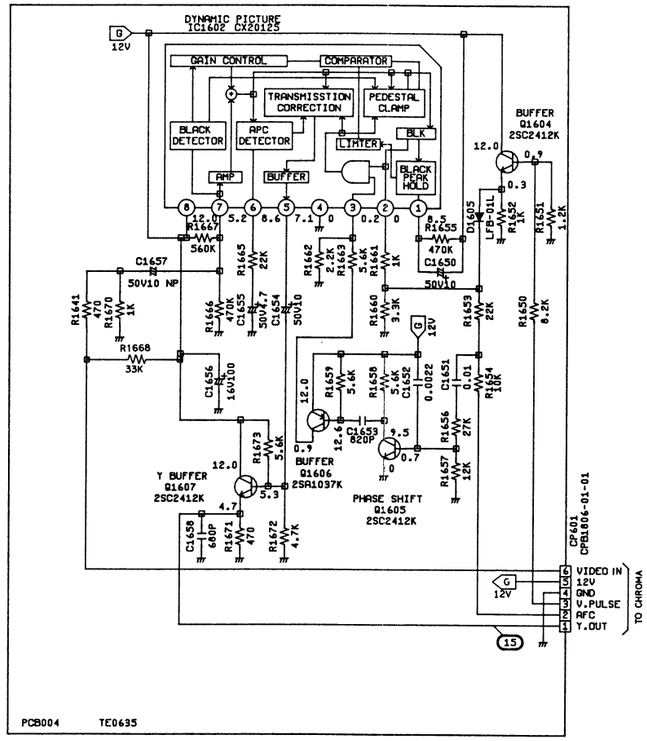


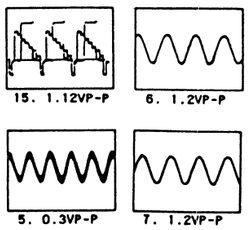
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

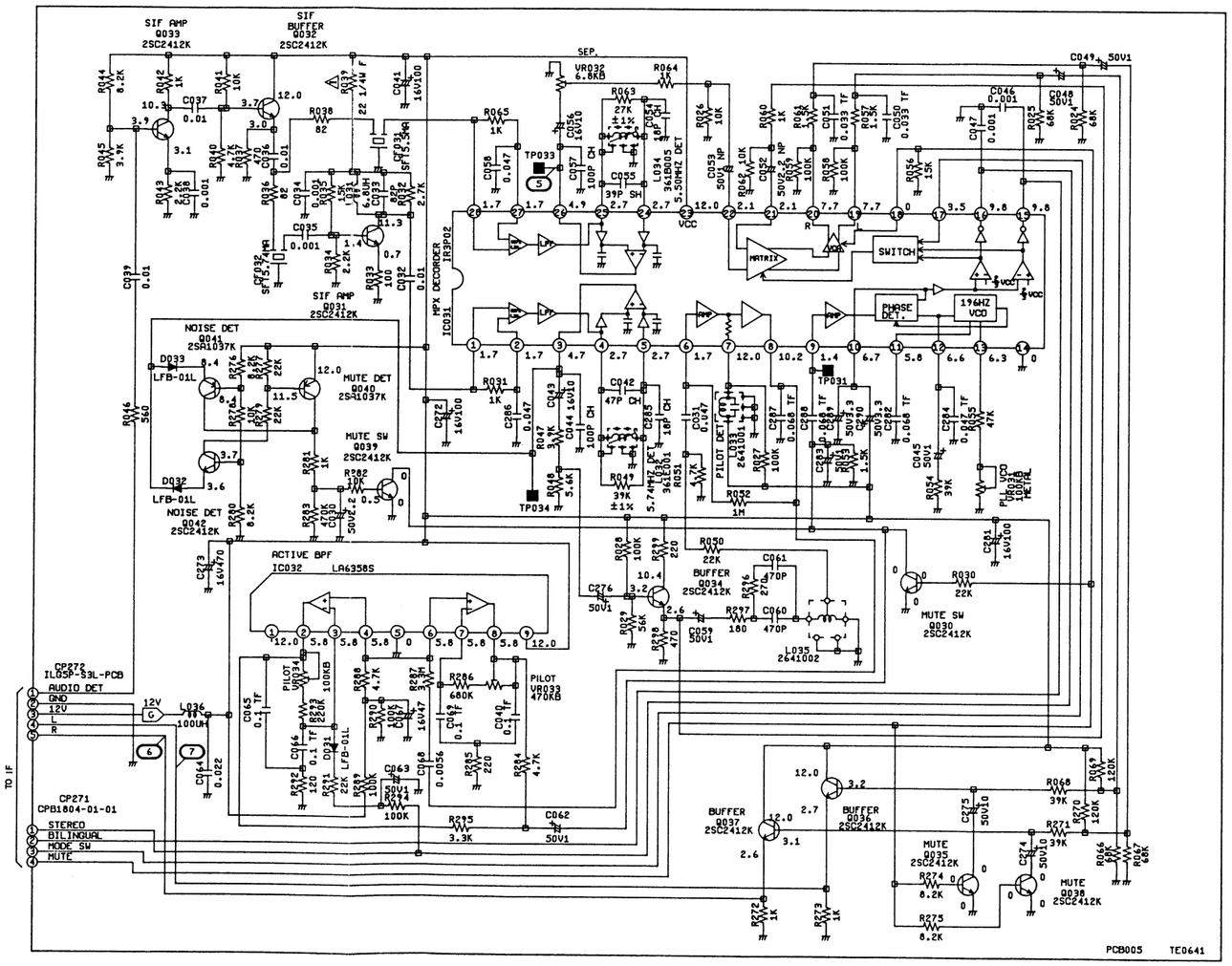
A/V SWITCH SCHEMATIC DIAGRAM

1-12084

STEREO/SAP SCHEMATIC DIAGRAM





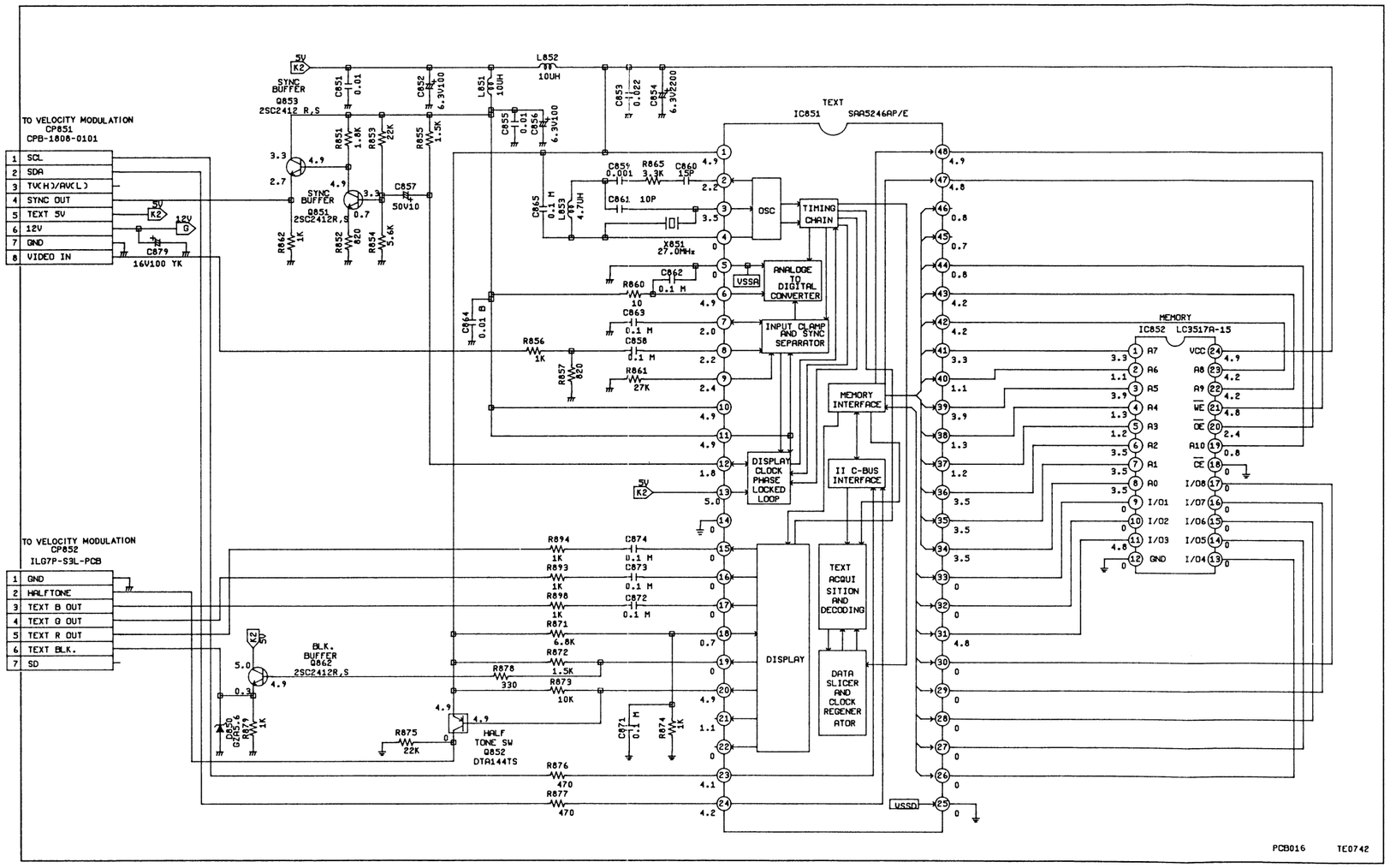


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

STEREO/SAP SCHEMATIC DIAGRAM

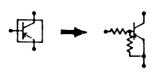
1-12085

T'TEXT SCHEMATIC DIAGRAM



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

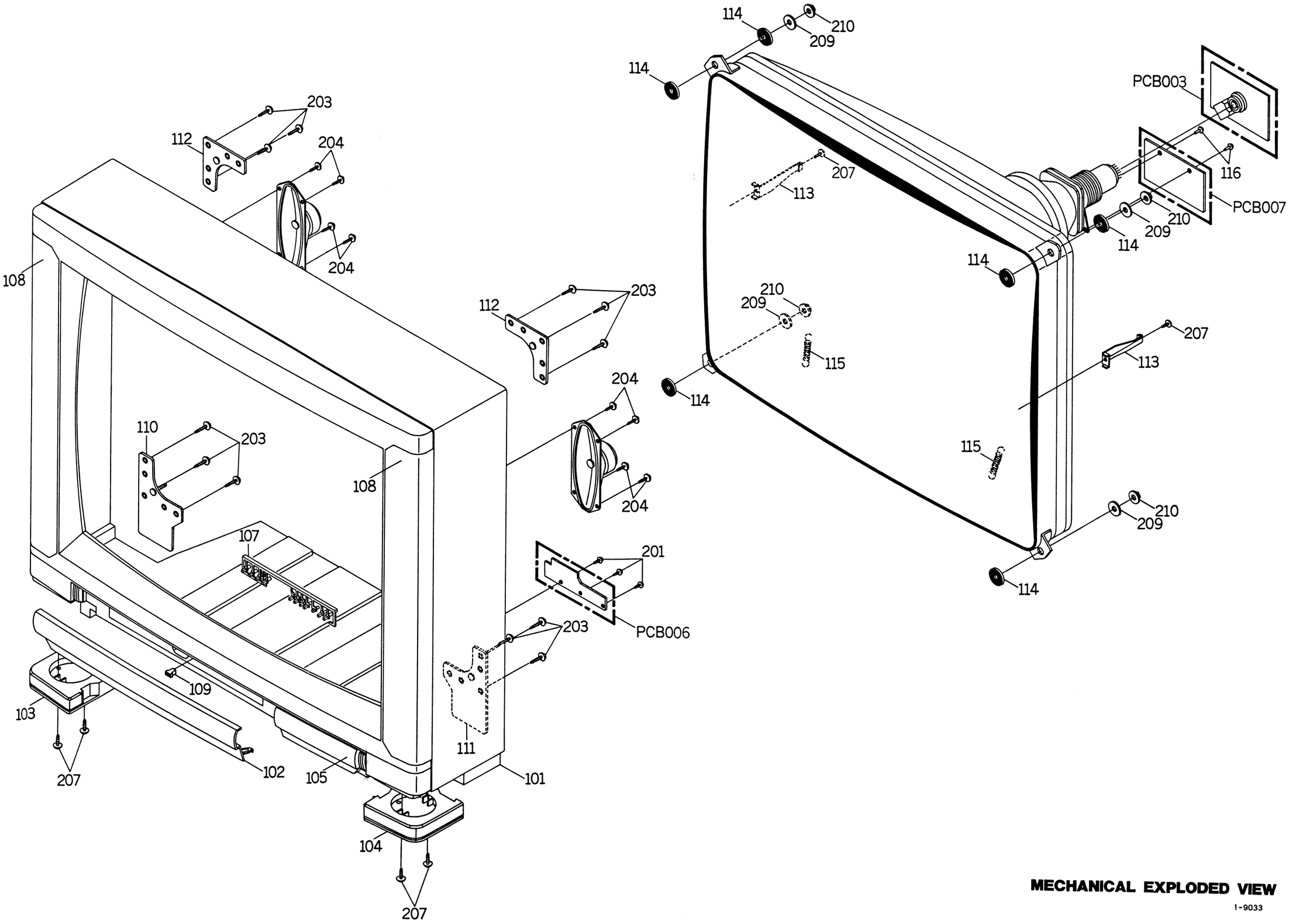
CAUTION: DIGITAL TRANSISTOR



T'TEXT SCHEMATIC DIAGRAM

1-12086

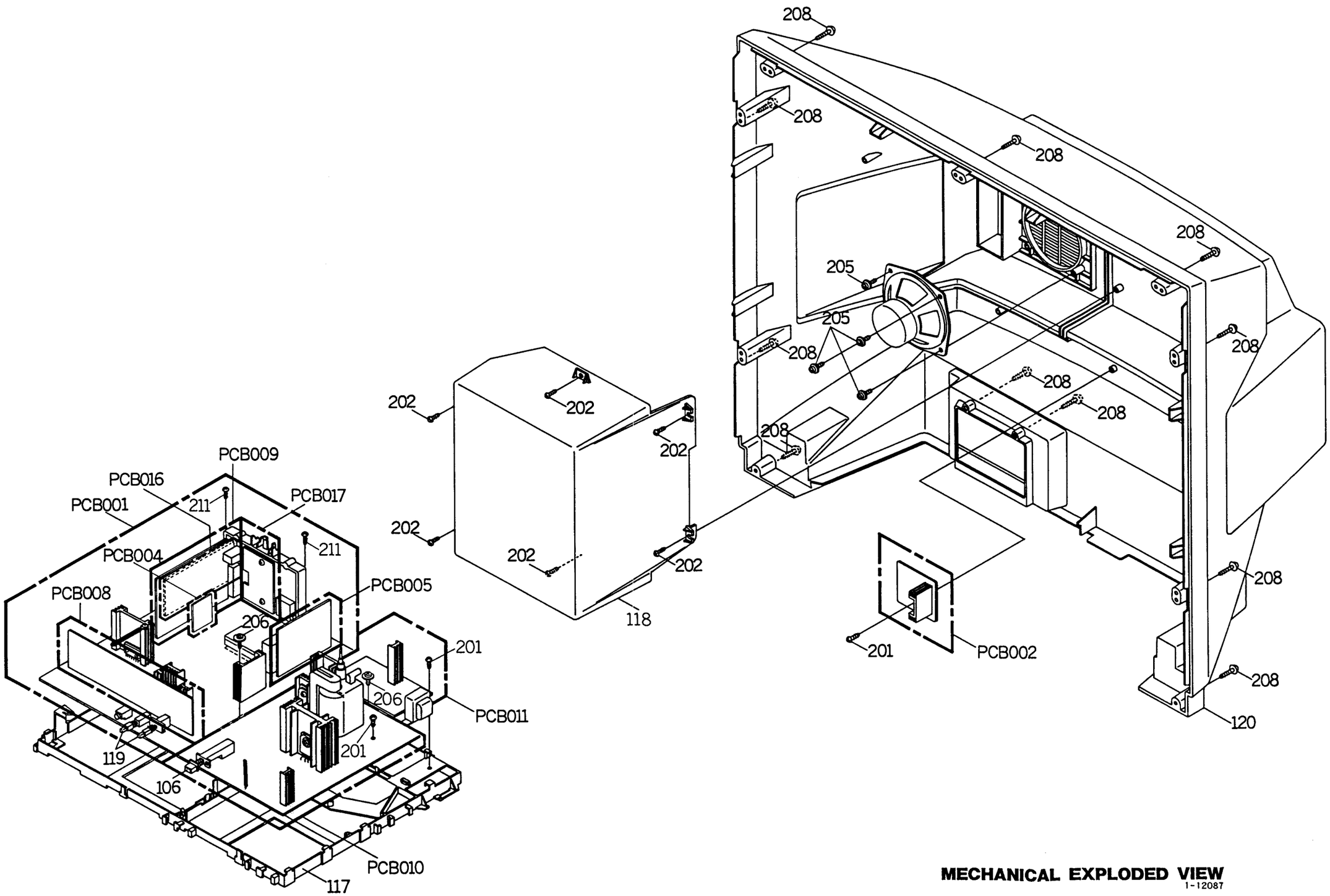
MECHANICAL EXPLODED VIEW



MECHANICAL EXPLODED VIEW

1-9033

MECHANICAL EXPLODED VIEW



MECHANICAL EXPLODED VIEW
1-12087

MECHANICAL REPLACEMENT PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
101	A39020B720	CABINET,FRONT ASS'Y
	701APJ0020	CABINET,FRONT
	7230003470	SHEET,LED
	7230004567	PLATE,OPERATION
	7230004574	PLATE,PHONE
102	712APJ0087	DOOR
103	704TPA0014	FOOT(L)
	7230003607	TRIM
104	704TPA0015	FOOT(R)
	7230003607	TRIM
105	711TPD0038	PLATE,FRONT
106	735MPA0014	BUTTON,POWER
107	735KPA0093	BUTTON,FRAME
108	714KSB0015	GRILL,SPEAKER
109	890LA10000	NC LATCH
110	762TSA0029	ANGLE,CRT BOTTOM(L)
111	762TSA0030	ANGLE,CRT BOTTOM(R)
112	762TSA0028	ANGLE,CRT TOP
113	761TSA0139	SPACE,ANGLE
114	800AR00001	SHEET,CRT SUPPORT
115	741SUA0005	SPRING,EARTH
116	890NRP3550	NYLON RIVET
117	762JPA0021	FRAME,PCB
118	714APA0002	SPEAKER,BOX
119	735MPA0015	BUTTON,PUSH
120	A39020B740	CABINET,BACK ASS'Y
	702APA0048	CABINET,BACK
	7222021460	SHEET,RATING
	800JR00048	NEOBELT PC
201	8110630804	SCREW,TAP TITE(P) BRAZIER 3*8
202	8110630A24	SCREW,TAP TITE(P) BRAZIER 3*12
203	8110240B04	SCREW,TAP TITE(P) BIND 4*20
204	8117D30804	SCREW,TAPPING(BO) WH8 3*8
205	8117D30A04	SCREW,TAPPING(BO) WH8 BRAZIER 3*10
206	8117F30A04	SCREW,TAPPING(BO) WH12 3*10
207	8117540A24	SCREW,TAPPING(BO) TRUSS 4*12
208	8117540A62	SCREW,TAPPING(BO) TRUSS 4*16
209	82A60B2164	WASHER 6.3*22*T1.6
210	8300560004	SL NUT M6
211	8110630A04	SCREW,TAP TITE(P) BRAZIER 3*10
---	J3620402	GUARANTEE CARD
---	J3900301	INSTRUCTION BOOK
---	J3900303	SCHEMATIC DIAGRAM
---	J3900307	QUICK SET-UP SHEET
---	J3900308	PTB SHEET
---	791AHA0007	SHEET,LIGHTRON
---	792AHA0018	PACKAGE,TOP
---	792AHA0019	PACKAGE,BOTTOM
---	793ACD0250	GIFT BOX
---	800JF00165	CUSHION,SPEAKER

THIS ELECTRICAL PARTS LIST IS STANDARD PART LIST, BUT
INTERCHANGEABLE PARTS MAY BE USED IN THE UNIT.
SEE THE INTERCHANGEABLE PARTS LIST AFTER THE STANDARD PARTS LIST.

ELECTRICAL REPLACEMENT PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
RESISTORS		
⚠ R039	R61584220J	R.FUSE 22 OHM 1/4W
⚠ R078	R3228A123J	R.METAL OXIDE 12K OHM 2 W
⚠ R079	R32181470J	R.METAL OXIDE 47 OHM 1 W
⚠ R080	R61581221J	R.FUSE 220 OHM 1 W
⚠ R380	R61584330J	R.FUSE 33 OHM 1/4W
⚠ R395	R5Y2CE2R7J	R.CEMENT 2.7 OHM 7 W
⚠ R406	R611844706	R.FUSE 47 OHM 1/4W
⚠ R431	R32181681J	R.METAL OXIDE 680 OHM 1 W
⚠ R436	R3228B152J	R.METAL OXIDE 1.5K OHM 3 W
⚠ R437	R3228B152J	R.METAL OXIDE 1.5K OHM 3 W
⚠ R438	R614815R6J	R.FUSE 5.6 OHM 1 W
⚠ R439	R5Y2CE3R3J	R.CEMENT 3.3 OHM 7 W
⚠ R441	R32281391J	R.METAL OXIDE 390 OHM 1 W
⚠ R448	R6158A1R8J	R.FUSE 1.8 OHM 2 W
⚠ R449	R6158A1R8J	R.FUSE 1.8 OHM 2 W
⚠ R456	R615842R2J	R.FUSE 2.2 OHM 1/4W
⚠ R480	R615826R8J	R.FUSE 6.8 OHM 1/2W
⚠ R502	R5Y2CG4R7J	R.CEMENT 4.7 OHM 15 W
⚠ R505	R63584470J	R.FUSE 47 OHM 1/4W
R506	R32181330J	R.METAL OXIDE 33 OHM 1 W
R507	R3218A473J	R.METAL OXIDE 47K OHM 2 W
⚠ R512	R32181R33J	R.METAL OXIDE 0.33 OHM 1 W
⚠ R513	R32181R39J	R.METAL OXIDE 0.39 OHM 1 W
⚠ R514	R3228A150J	R.METAL OXIDE 15 OHM 2 W
⚠ R515	R614813R3J	R.FUSE 3.3 OHM 1 W
⚠ R518	R63584010J	R.FUSE 1 OHM 1/4W
⚠ R519	R635821R8J	R.FUSE 1.8 OHM 1/2W
R601	R00202184J	RC 180K OHM 1/2W
⚠ R602	R61584100J	R.FUSE 10 OHM 1/4W
R641	R00106183J	RC 18K OHM 1/6W
R663	R00106223J	RC 22K OHM 1/6W
R664	R00106332J	RC 3.3K OHM 1/6W
R691	R00106103J	RC 10K OHM 1/6W
R755	R00104750J	RC 75 OHM 1/4W
⚠ R805	R32181393J	R.METAL OXIDE 39K OHM 1 W
⚠ R806	R3218A822J	R.METAL OXIDE 8.2K OHM 2 W
⚠ R813	R32181393J	R.METAL OXIDE 39K OHM 1 W
⚠ R814	R3218A822J	R.METAL OXIDE 8.2K OHM 2 W
⚠ R821	R32181393J	R.METAL OXIDE 39K OHM 1 W
⚠ R822	R3218A822J	R.METAL OXIDE 8.2K OHM 2 W
⚠ R826	R3218A223J	R.METAL OXIDE 22K OHM 2 W
⚠ R827	R3218A223J	R.METAL OXIDE 22K OHM 2 W
⚠ R828	R3218A223J	R.METAL OXIDE 22K OHM 2 W
⚠ R902	R61584220J	R.FUSE 22 OHM 1/4W
⚠ R929	R61582270J	R.FUSE 27 OHM 1/2W
R1350	R00104390J	RC 39 OHM 1/4W
R1351	R3210A151J	R.METAL OXIDE 150 OHM 2 W
R1366	R00104010J	RC 1 OHM 1/4W
R1370	R00106223J	RC 22K OHM 1/6W
R1377	R00106272J	RC 2.7K OHM 1/6W
⚠ R1476	R61582151J	R.FUSE 150 OHM 1/2W
⚠ R1495	R61582121J	R.FUSE 120 OHM 1/2W
CAPACITORS		
C148	C020F04H4Z	CC 0.022 UF 50V F
C355	E02703471M	CE 470 UF 25V
C372	E027F2222M	CE 2200 UF 16V
C404	P61300105J	CMPL 1.0 UF 50V
C414	P23200155J	CMPL 1.5 UF 50V
C420	E027F3332M	CE 3300 UF 25V
C438	P23200155J	CMPL 1.5 UF 50V
C439	P441F2474J	CMPP 0.47 UF 200V
C441	P441F2104J	CMPP 0.1 UF 200V
C442	E031FD100M	CE 10 UF 250V
C444	P442FG183J	CMPP 0.018 PF1.5KV
C445	C034BN7H2K	CC 220 PF 2KV
C447	C034BN7U2K	CC 680 PF 2KV
C452	E0250B470M	CE 47 UF 160V
C458	C034BN7W2K	CC 820 PF 2KV
C459	P341F5472J	CPP 0.0047UF 630V
C461	C034BN7U2K	CC 680 PF 2KV
C467	P61300105J	CMPL 1.0 UF 50V
C469	P341F5473J	CPP 0.047 UF 630V
C479	P441F2105J	CMPP 1.0 UF 200V
C480	P441F2105J	CMPP 1.0 UF 200V
C486	C030BN7H2K	CC 220 PF 2KV
⚠ C501	P2160B224M	CPP 0.22 UF 250V
⚠ C502	P2160B474M	CPP 0.47 UF 250V
C503	C02BB07H3K	CC 0.0022UF 2KV B
C504	C02BB07H3K	CC 0.0022UF 2KV B
C505	C02BB07H3K	CC 0.0022UF 2KV B
C506	E03SFH221M	CE 220 UF 400V
C507	E02QF6100M	CE 10 UF 63V
C508	E02QF5470M	CE 47 UF 50V

REF.NO.	PART NO.	DESCRIPTION
CAPACITORS (CONT.)		
C511	P341F4473J	CPP 0.047 UF 400V
C512	C03F0R7L2K	CC 330 PF 2KV
C513	C034BN713K	CC 0.001 UF 2KV
C514	C034BN713K	CC 0.001 UF 2KV
C515	E02KFB331M	CE 330 UF 160V
C517	E027F4222M	CE 2200 UF 35V
C519	E02SF3332M	CE 3300 UF 25V
C521	E027F3102M	CE 1000 UF 25V
C534	C034BN7U2K	CC 680 PF 2KV
⚠ C551	C03FE09Q2K	CC 470 PF 4KV B
⚠ C552	C03FE09Q2K	CC 470 PF 4KV B
⚠ C553	C03FE09Q2K	CC 470 PF 4KV B
⚠ C554	C03FE09H3M	CC 2200 PF 4KV E
C555	C034BN7U2K	CC 680 PF 2KV
C560	C030BN7W2K	CC 820 PF 2KV
C603	E027F2102M	CE 1000 UF 16V
C607	E02705100M	CE 10 UF 50V
C613	E02702222M	CE 2200 UF 16V
C621	E02E05010M	CE 1 UF 50V
C636	P61300105J	CMPL 1.0 UF 50V
C662	E02705100M	CE 10 UF 50V
C664	P61300684J	CMPL 0.68 UF 50V
C674	C020SL4L2J	CC 330 PF 50V SL
C677	E027054R7M	CE 4.7 UF 50V
C679	C020SL4B1J	CC 12 PF 50V SL
C801	C02BB07H3K	CC 0.0022UF 2KV B
C1383	E027F3332M	CE 3300 UF 25V
C1390	C020F04H4Z	CC 0.022 UF 50V F
C1453	C020B05Q3K	CC 0.0047UF 500V B
C1454	C020B05Q3K	CC 0.0047UF 500V B
C1615	C020SL4L2J	CC 330 PF 50V SL
C1616	C020SL4L2J	CC 330 PF 50V SL
C1618	C020SL4L2J	CC 330 PF 50V SL
SEMICONDUCTORS		
D031	DD3RLFB01L	DIODE,SILICON LFB-01L
D032	DD3RLFB01L	DIODE,SILICON LFB-01L
D033	DD3RLFB01L	DIODE,SILICON LFB-01L
D101	002132Q010	LED SLZ-136C-07-T1
D102	002132Q010	LED SLZ-136C-07-T1
D103	002132Q010	LED SLZ-136C-07-T1
D104	002132Q010	LED SLZ-136C-07-T1
D106	D93T06R80Y	DIODE,ZENER GIA6.8 Y BT
D111	DD3RLFB01L	DIODE,SILICON LFB-01L
D113	DD3RLFB01L	DIODE,SILICON LFB-01L
D114	DD3RLFB01L	DIODE,SILICON LFB-01L
D116	DD3RLFB01L	DIODE,SILICON LFB-01L
D118	DD3RLFB01L	DIODE,SILICON LFB-01L
D119	DD3RLFB01L	DIODE,SILICON LFB-01L
D120	DD3RLFB01L	DIODE,SILICON LFB-01L
D121	DD3RLFB01L	DIODE,SILICON LFB-01L
D122	DD3RLFB01L	DIODE,SILICON LFB-01L
D123	DD3RLFB01L	DIODE,SILICON LFB-01L
D124	DD3RLFB01L	DIODE,SILICON LFB-01L
D125	DD3RLFB01L	DIODE,SILICON LFB-01L
D126	DD3RLFB01L	DIODE,SILICON LFB-01L
D127	DD3RLFB01L	DIODE,SILICON LFB-01L
D128	DD3RLFB01L	DIODE,SILICON LFB-01L
D129	DD3RLFB01L	DIODE,SILICON LFB-01L
D130	DD3RLFB01L	DIODE,SILICON LFB-01L
D131	DD3RLFB01L	DIODE,SILICON LFB-01L
D132	DD3RLFB01L	DIODE,SILICON LFB-01L
D134	D25T5566B0	DIODE,RECTIFIER Si56 6B(TPA3)
D135	D25T5566B0	DIODE,RECTIFIER Si56 6B(TPA3)
D136	D25T5566B0	DIODE,RECTIFIER Si56 6B(TPA3)
D137	D25T5566B0	DIODE,RECTIFIER Si56 6B(TPA3)
D138	D25T5566B0	DIODE,RECTIFIER Si56 6B(TPA3)
D141	DD3RLFB01L	DIODE,SILICON LFB-01L
D143	D93T05R10Y	DIODE,ZENER GIA5.1 Y BT-T
D146	D93T03000X	DIODE,ZENER GIA3 0 X BT
D147	D25T5566B0	DIODE,RECTIFIER Si56 6B(TPA3)
D148	DD3RLFB01L	DIODE,SILICON LFB-01L
D149	D93T04R30Z	DIODE,ZENER GIA4.3 Z BT
D150	DD3RLFB01L	DIODE,SILICON LFB-01L
D404	D23TFD05TG	DIODE,RECTIFIER DIDO 5TG-BT
D405	D23TFD05TG	DIODE,RECTIFIER DIDO 5TG-BT
D406	D23TFD05TG	DIODE,RECTIFIER DIDO 5TG-BT
D409	D93T01100Y	DIODE,ZENER GIA1 1 Y BT
D410	D28T011E20	DIODE,SILICON 1E2 TA1
D411	DCBFTS3FU0	DIODE,STACK CS- 3FU
D412	D23TFD05TG	DIODE,RECTIFIER DIDO 5TG-BT
D413	D23TFD05TG	DIODE,RECTIFIER DIDO 5TG-BT
D414	D13TGMA010	DIODE,SILICON GIA- 01-BT
D415	D93T02000Y	DIODE,ZENER GIA2 0 Y BT

ELECTRICAL REPLACEMENT PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
	SEMICONDUCTORS (CONT.)	
D416	D93T01000X	DIODE,ZENER GZA10 X BT
⚠ D501	D2BHRM11C0	DIODE,RECTIFIER RM11C
⚠ D502	D2BHRM11C0	DIODE,RECTIFIER RM11C
⚠ D503	D2BHRM11C0	DIODE,RECTIFIER RM11C
⚠ D504	D2BHRM11C0	DIODE,RECTIFIER RM11C
D505	D2BT0EU01A	DIODE,SILICON EU01AV0
D506	D2BH00EU1Z	DIODE,RECTIFIER EU1Z
D507	D2BH00EU1Z	DIODE,RECTIFIER EU1Z
D508	D2BT0EU01A	DIODE,SILICON EU01AV0
D509	D2B00RU1P0	DIODE,RECTIFIER RU1P
D510	D2BT0EU01A	DIODE,SILICON EU01AV0
D511	D2BF0RU4A0	DIODE,SILICON RU4A
D512	D2B000R2M0	DIODE,AVALANCHE R2M
D513	D2BF00RU20	DIODE,SILICON RU-2
D514	D2B000RU30	DIODE,SILICON RU 3
D515	D280F5KF20	DIODE,FAST RECOVERY F5KF20
D521	D2BF00RU20	DIODE,SILICON RU-2
D603	D13TGMA010	DIODE,SILICON GMA-01-BT
D607	D93T03R60X	DIODE,ZENER GZA3.6 X BT
D615	D93T06R80Y	DIODE,ZENER GZA6.8 Y BT
D711	DD3RLFB01L	DIODE,SILICON LFB-01L
D712	DD3RLFB01L	DIODE,SILICON LFB-01L
D713	DD3RLFB01L	DIODE,SILICON LFB-01L
D714	DD3RLFB01L	DIODE,SILICON LFB-01L
D715	DD3RLFB01L	DIODE,SILICON LFB-01L
D732	D93T05R60Y	DIODE,ZENER GZA5.6 Y BT
D801	D93T01200Y	DIODE,ZENER GZA12 Y BT
D802	D93T01200Y	DIODE,ZENER GZA12 Y BT
D803	D93T01200Y	DIODE,ZENER GZA12 Y BT
D850	DE7RA5R60B	DIODE,ZENER RLZ5.6B TE-11
D1353	D280010D10	DIODE,RECTIFIER 10D-1
D1354	D13TGMA010	DIODE,SILICON GMA-01-BT
D1355	D280EQS040	DIODE,SCHOTTKY 11EQS04
D1417	D93T01200Y	DIODE,ZENER GZA12 Y BT
D1418	D13TDS442X	DIODE,SILICON DS442X-BT
D1605	DD3RLFB01L	DIODE,SILICON LFB-01L
IC031	I0GDF3P020	IC IR3P02
IC032	I03S063580	IC LA6358S
IC101	I51D08032B	IC OEC8032B
⚠ IC102	I03B98M050	IC L78M05-SA
IC103	I52D010130	IC OEC1013
IC105	I01901280S	IC MN1280-S
IC106	IA1DN12200	IC MN1220
⚠ IC133	I02190574J	IC UPC574J-T
IC201	I06DA365SP	IC M51365SP
IC202	I03S072100	IC LA7210
IC351	I03SP44450	IC LA4445
IC371	I01S058360	IC AN5836
⚠ IC401	I02SD14980	IC UPC1498H
⚠ IC404	I03B97812V	IC L7812V-SA
⚠ IC405	I03B98M050	IC L78M05-SA
⚠ IC501	I2B4990410	IC STR59041
IC601	I06DE20250	IC M52025SP
IC701	I03DE79550	IC LA7955
IC702	I03S070160	IC LA7016
IC703	I01D058600	IC AN5860
IC704	I01D058600	IC AN5860
IC851	I4KDF52460	IC SAA5246AP/E M6
IC852	I53D03517C	IC LC3517A-15
IC901	I05DE77780	IC TA7778P
IC1352	I02SP12410	IC UPC1241H
IC1602	I00SE01250	IC CX20125
Q030	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q031	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q032	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q033	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q034	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q035	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q036	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q037	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q038	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q039	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q040	T67A1037K0	TRANSISTOR,SILICON 2SA1037KT147
Q041	T67A1037K0	TRANSISTOR,SILICON 2SA1037KT147
Q042	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q101	T67A1037K0	TRANSISTOR,SILICON 2SA1037KT147
Q102	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q103	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q104	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q105	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q106	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q107	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q108	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147

REF.NO.	PART NO.	DESCRIPTION
	SEMICONDUCTORS (CONT.)	
Q109	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q110	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q111	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q112	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q113	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q114	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q115	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q116	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q117	T67A1037K0	TRANSISTOR,SILICON 2SA1037KT147
Q118	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q119	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q122	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q123	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q124	TD3T007340	TR.,SILICON 2SD734(E,F,G)-AA
Q126	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q201	TC3T030000	TR.,SILICON 2SC3000(D,E)-AA
Q202	TA2T007330	TRANSISTOR,SILICON 2SA733(P,Q)-T
Q203	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
⚠ Q401	TD5Q015470	TRANSISTOR,SILICON 2SD1547
Q402	TC3Q026210	TR.,SILICON 2SC2621(D,E)-RAC
Q471	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q472	TB3G01134R	TRANSISTOR,SILICON 2SB1134R-SA
Q501	TD3T00863E	TRANSISTOR,SILICON 2SD863E-AE
Q502	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q503	TA3T017060	TRANSISTOR,SILICON 2SA1706(S,T)-AN
Q601	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q602	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q610	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q614	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q615	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q616	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q701	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q708	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q709	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q710	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q711	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q712	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q713	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q714	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q715	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q716	T67A1037K0	TRANSISTOR,SILICON 2SA1037KT147
Q720	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q721	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q722	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q723	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q724	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q725	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q726	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q727	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q728	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q729	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q730	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q731	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q732	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q733	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q734	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q801	TC3Q040750	TR.,SILICON 2SC4075(D,E)-YAC
Q802	TC3T034680	TRANSISTOR,SILICON 2SC3468(D,E)-AE
Q803	TA3T1371A0	TRANSISTOR,SILICON 2SA1371(D,E)-AE
Q804	TC3Q040750	TR.,SILICON 2SC4075(D,E)-YAC
Q805	TC3T034680	TRANSISTOR,SILICON 2SC3468(D,E)-AE
Q806	TA3T1371A0	TRANSISTOR,SILICON 2SA1371(D,E)-AE
Q807	TC3Q040750	TR.,SILICON 2SC4075(D,E)-YAC
Q808	TC3T034680	TRANSISTOR,SILICON 2SC3468(D,E)-AE
Q809	TA3T1371A0	TRANSISTOR,SILICON 2SA1371(D,E)-AE
Q810	TC3T034680	TRANSISTOR,SILICON 2SC3468(D,E)-AE
Q811	TC3T034680	TRANSISTOR,SILICON 2SC3468(D,E)-AE
Q812	TC3T034680	TRANSISTOR,SILICON 2SC3468(D,E)-AE
Q851	T87A2412K0	TRANSISTOR,SILICON 2SC2412KT147
Q852	TP7TD03002	COMPOUND TRANSISTOR DTA144TSTP
Q853	T87A2412K0	TRANSISTOR,SILICON 2SC2412KT147
Q862	T87A2412K0	TRANSISTOR,SILICON 2SC2412KT147
Q903	TA2T00952L	TRANSISTOR,SILICON 2SA952LT
Q904	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q905	TA2T007330	TRANSISTOR,SILICON 2SA733(P,Q)-T
Q1351	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q1353	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q1355	TA2T007330	TRANSISTOR,SILICON 2SA733(P,Q)-T
Q1403	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q1405	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q1406	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q1407	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q1408	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q1409	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T

ELECTRICAL REPLACEMENT PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
SEMICONDUCTORS (CONT.)		
Q1410	TC2T009450	TRANSISTOR,SILICON 2SC945(P,Q)-T
Q1411	TA2T007330	TRANSISTOR,SILICON 2SA733(P,Q)-T
Q1412	TA5Q1306Y0	TRANSISTOR,SILICON 2SA1306-Y
Q1413	TC5Q3298Y0	TRANSISTOR,SILICON 2SC3298AY
Q1604	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q1605	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
Q1606	T67A1037K0	TRANSISTOR,SILICON 2SA1037KT147
Q1607	T87A02412K	TRANSISTOR,SILICON 2SC2412KT147
COILS & TRANSFORMERS		
L002	02AXA509C1	FILTER,LINE ESD-R-16C
L031	0216736R8K	COIL 6.8 UH
L032	03361E0011	COIL,SOUND IFT 361E001
L033	0326410011	COIL,TRAP 2641001
L034	03361B0051	COIL,SOUND IFT 361B005
L035	0326410021	COIL,TRAP 2641002
L036	021673101K	COIL 100 UH
L101	021673330K	COIL 33 UH
L102	021673560K	COIL 56 UH
L201	03360N0028	COIL,DET 360N002
L202	021673680K	COIL 68 UH
L203	021JA61R2M	COIL 1.2 UH
L204	0336050038	COIL,MATCHING 3605003
L205	021JA6820K	COIL 82 UH
L206	021673680K	COIL 68 UH
L207	021JA6150K	COIL 15 UH
L211	03360L0018	COIL,TRAP 360L001
L215	021JA6R47M	COIL 0.47 UH
L216	0336010028	COIL,DET 3601002
L303	021673101K	COIL 100 UH
L402	0221000010	COIL,LINEARITY 21000010
L471	02C8000004	SIDE PIN MODULATOR COIL C8000004
L472	02D8000012	TIB PIN PHASE COIL D8000012
⚠ L501	0296000028	COIL,LINE FILTER 96000028
⚠ L502	028E320002	COIL,DEGAUSS 8E320002
⚠ L503	0296000028	COIL,LINE FILTER 96000028
L504	02186D470K	COIL 47 UH
L505	021J74470K	COIL 47 UH
L506	02186D470K	COIL 47 UH
L510	02AXA509C1	FILTER,LINE ESD-R-16C
L511	02AXA509C1	FILTER,LINE ESD-R-16C
L602	021JA6100K	COIL 10 UH
L603	021JA66R8K	COIL 6.8 UH
L605	03352R0177	COIL,CHROMA 352R017
L606	0335000098	COIL,MATCHING 3500009
L607	021JA68R2K	COIL 8.2 UH
L610	021JA6560K	COIL 56 UH
L701	021JA6470K	COIL 47 UH
L702	021JA6470K	COIL 47 UH
L703	021JA6470K	COIL 47 UH
L704	021JA6470K	COIL 47 UH
L705	021JA6470K	COIL 47 UH
L706	021JA6470K	COIL 47 UH
L707	021JA6470K	COIL 47 UH
L708	021JA6330K	COIL 33 UH
L709	021JA6470K	COIL 47 UH
L801	02AX2614F2	FILTER,LINE AC ESD-R-25D-B1
L851	021JA6100K	COIL 10 UH
L852	021JA6100K	COIL 10 UH
L853	021JA64R7K	COIL 4.7 UH
L1404	021673330K	COIL 33 UH
L1405	021673120K	COIL 12 UH
⚠ T101	0405300017	REMOCON TRANS. 0530001
T401	0450190051	TRANS.,HORIZONTAL DRIVE 019005
⚠ T501	0481490171	SWITCHING TRANS. 81490171
JACKS		
J351	0602131001	JACK,RCA 3.5 HSJ0918-01-040
J352	063P000047	PUSH TERMINAL T-6000C
J701	0632000055	JACK,PLATE JXT0905-010310
J702	0622740004	JACK,S-VHS TCS7927-14
J705	0632100014	SOCKET,21PIN HXC1524-01-010
⚠ J801	0662130008	SOCKET,CRT HPS0385-01-020A
SWITCHES		
SW105	0504201T30	SWITCH,TACT SKHVLH006B
SW106	0504201T30	SWITCH,TACT SKHVLH006B
SW107	0504201T30	SWITCH,TACT SKHVLH006B
SW108	0504201T30	SWITCH,TACT SKHVLH006B
SW110	0504201T30	SWITCH,TACT SKHVLH006B
SW111	0504201T30	SWITCH,TACT SKHVLH006B
SW351	0500201022	SWITCH,PUSH SPUN12519A
SW352	0500201021	SWITCH,PUSH SPUP19037A

REF.NO.	PART NO.	DESCRIPTION
SWITCHES (CONT.)		
SW401	0510B22001	SWITCH,SLIDE SS-22F16G7
⚠ SW501	0530102008	SWITCH,PUSH ESB-76937A
VARIABLE RESISTORS		
VR031	V126315B03	VR,SEMIFIXED RH0624C15J0E
VR032	V1163U3BT6	VR,SEMIFIXED EVNDXAA03BS3
VR033	V1163Q5BT6	VR,SEMIFIXED EVNDXAA03BQ5
VR034	V116315BT6	VR,SEMIFIXED EVNDXAA03B15
VR101	V1163H4BT6	VR,SEMIFIXED EVNDXAA03BE4
VR201	V116314BT6	VR,SEMIFIXED EVNDXAA03B14
VR401	V1263Q4B03	VR,SEMIFIXED RH0624CS4J0A
VR402	V1163H4BT6	VR,SEMIFIXED EVNDXAA03BE4
VR471	V1163L3BT6	VR,SEMIFIXED EVNDXAA03BY3
VR472	V116313BT6	VR,SEMIFIXED EVNDXAA03B13
VR612	V126213B01	VR,SEMIFIXED RH0614C13J0B
VR613	V029200005	VR,ROTARY RK09K1110AKSA
VR614	V116313BT6	VR,SEMIFIXED EVNDXAA03B13
VR901	V116313BT6	VR,SEMIFIXED EVNDXAA03B13
P.C. BOARD ASSEMBLIES		
PCB001	A39020B01AT	PCB ASS'Y TM0186-T
PCB002	A39020B04A	PCB ASS'Y TE0633
PCB003	A39020B11A	PCB ASS'Y TC0134
PCB004	A39020B12A	PCB ASS'Y TE0635
PCB005	A39020B18A	PCB ASS'Y TE0641
PCB006	A39020B03A	PCB ASS'Y TE0639
PCB007	A39020B21A	PCB ASS'Y TE0630
PCB008	A39020B29A	PCB ASS'Y TE0640
PCB009	A39020B32A	PCB ASS'Y TE0642
PCB010	A39020B02A	PCB ASS'Y TE0614
PCB011	A39020B09A	PCB ASS'Y TE0629
PCB016	A39020B15A	PCB ASS'Y TE0742
PCB017	A39020B28A	PCB ASS'Y TE0644
MISCELLANEOUS		
B401	0246451652	CORE,BEADS BF25-4.5*5*1.6
B402	0246451652	CORE,BEADS BF25-4.5*5*1.6
B501	024JT03551	CORE,BEADS FBA04HA450AB-00
B504	024JT03551	CORE,BEADS FBA04HA450AB-00
B505	024JT03551	CORE,BEADS FBA04HA450AB-00
B506	024JT03551	CORE,BEADS FBA04HA450AB-00
B507	024JT03551	CORE,BEADS FBA04HA450AB-00
B508	024JT03551	CORE,BEADS FBA04HA450AB-00
BT001	141T004006	BATTERY,MANGAN UM-4
BT002	141T004006	BATTERY,MANGAN UM-4
B1405	024DF035B1	CORE,BEADS LFP-3C-M1R6A0
B1406	024DF035B1	CORE,BEADS LFP-3C-M1R6A0
B1407	024DF035B1	CORE,BEADS LFP-3C-M1R6A0
B1408	024DF035B1	CORE,BEADS LFP-3C-M1R6A0
CD001	068WB90001	CORD,COAXIAL 8WB90001
CD002	068123019A	CORD,CONNECTOR 8123019A
CD110	068122018A	CORD,CONNECTOR 8122018A
CD112	068124026A	CORD,CONNECTOR 8124026A
CD351	068D14245A	CORD,CONNECTOR 8D14245A
CD352	068318071A	CORD,CONNECTOR 8318071A
CD353	068D12239A	CORD,CONNECTOR 8D12239A
CD354	068DG09001	CORD,CONNECTOR 8DG09001
CD355	068DG09001	CORD,CONNECTOR 8DG09001
CD403	068316079A	CORD,CONNECTOR 8316079A
CD404	06831A035A	CORD,CONNECTOR 831A035A
CD471	068M15111A	CORD,CONNECTOR 8M15111A
CD472	068D42024A	CORD,CONNECTOR 8D42024A
⚠ CD501	120S451005	CORD,AC 120S451005
CD504	068M46007B	CORD,CONNECTOR 8M46007B
CD508	068M01309A	CORD,CONNECTOR 8M01309A
CD509	0681220138	CORD,CONNECTOR 81220138
CD510	068D82015A	CORD,CONNECTOR 8D82015A
CD705	068128029A	CORD,CONNECTOR 8128029A
CD706	068125031A	CORD,CONNECTOR 8125031A
CD801	127A300001	BRAIDED WIRE SH-1835
CD802	068318070A	CORD,CONNECTOR 8318070A
CD803	122Q054504	CORD,JUMPER 2Q054504
CF001	116F3TH4Z1	FILTER,EMI LTSTF223ZBTB
CF002	116F3TH4Z1	FILTER,EMI LTSTF223ZBTB
CF003	116F3TH4Z1	FILTER,EMI LTSTF223ZBTB
CF031	101205R504	FILTER,CERAMIC SFT5.5MA
CF032	101205R743	FILTER,CERAMIC SFT5.74MA
CF201	1027038R95	FILTER,SAW P1037B
CF202	1012T5R503	FILTER,CERAMIC TRAP TPS5.5MB-TF21
CF203	1022133R42	FILTER,SAW SAF33.4MC70Z
CF351	1162423S3	FILTER,EMI ISS310-55DL223S
CF352	1162423S3	FILTER,EMI ISS310-55DL223S
CF353	1162423S3	FILTER,EMI ISS310-55DL223S

ELECTRICAL REPLACEMENT PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
	MISCELLANEOUS (CONT.)	
CF354	11624223S3	FILTER,EMI DSS310-55DL223S
CF701	116T4271K1	FILTER,EMI LTSTB271KBTB
CF702	116T4271K1	FILTER,EMI LTSTB271KBTB
CF703	1011A4R401	CERAMIC TRAP EFCA4434BF
CP101	069R2A0359	CONNECTOR PCB SIDE 5550-10E
CP102	069R280359	CONNECTOR PCB SIDE 5550-08E
CP103	069Q150179	CONNECTOR PCB SIDE CPB1805-0101
CP104	069R250359	CONNECTOR PCB SIDE 5550-05E
CP105	069R2A0359	CONNECTOR PCB SIDE 5550-10E
CP106	069R2A0359	CONNECTOR PCB SIDE 5550-10E
CP110	0694240276	CONNECTOR PCB SIDE 2-175487-4
CP111	0694260129	CONNECTOR PCB SIDE 173981-6
CP112	0694240129	CONNECTOR PCB SIDE 173981-4
CP271	069Q140179	CONNECTOR PCB SIDE CPB1804-0101
CP272	069H150209	CONNECTOR PCB SIDE ILG5P-S3L-PCB-S
CP351	0694140019	CONNECTOR PCB SIDE 171825-4
CP352	069X180209	CONNECTOR PCB SIDE B8B-EH-A
CP353	0694120099	CONNECTOR PCB SIDE 171825-2
CP401	069W340018	CONNECTOR PCB SIDE TS-80P-04-V1
CP402	069Q130239	CONNECTOR PCB SIDE W-P9003
CP403	069X160199	CONNECTOR PCB SIDE B6B-EH-A
CP404	069X1A0109	CONNECTOR PCB SIDE B10B-EH
CP405	069W010020	CONNECTOR PCB SIDE 005P-1100
CP471	0694150019	CONNECTOR PCB SIDE 171825-5
CP472	069D430019	CONNECTOR PCB SIDE TV-50P-03-A1
CP503	069W420029	CONNECTOR PCB SIDE TV-50P-02-A1
CP504	069M460029	CONNECTOR PCB SIDE TV-50P-06-A1
CP508	069W01001A	CONNECTOR PCB SIDE 003P-2100
CP509	0694220129	CONNECTOR PCB SIDE 173981-2
CP510	069W330018	CONNECTOR PCB SIDE TS-80P-03-V1
CP601	069Q160179	CONNECTOR PCB SIDE CPB1806-0101
CP701	069Q1A0179	CONNECTOR PCB SIDE CPB1810-0101
CP702	069H190209	CONNECTOR PCB SIDE ILG9P-S3L-PCB-S
CP703	069H1A0209	CONNECTOR PCB SIDE ILG10P-S3L-PCB
CP705	0694260129	CONNECTOR PCB SIDE 173981-8
CP706	0694250129	CONNECTOR PCB SIDE 173981-5
CP801	069W330018	CONNECTOR PCB SIDE TS-80P-03-V1
CP802	069X180190	CONNECTOR PCB SIDE B8B-EH-A-B
CP804	0694130010	CONNECTOR PCB SIDE 2-171825-3
CP805	0694120010	CONNECTOR PCB SIDE 2-171825-2
CP851	069Q180179	CONNECTOR PCB SIDE CPB1808-0101
CP852	069H170209	CONNECTOR PCB SIDE ILG7P-S3L-PCB-S
CV501	12AL10002A	COVER,AC CORD SB-1235B-U09
DL602	103S0R2802	DELAY LINE ELT-10Z263M
DL603	104114R43G	DELAY LINE GLASS EFDEN645A31F
⚠ F501	0808T05002	FUSE T 5A 250V
⚠ FB401	0432320012	TRANSFORMER,FLYBACK 3232001
FH501	06760T0001	HOLDER,FUSE PFC5000-0202
FH502	06760T0001	HOLDER,FUSE PFC5000-0202
⚠ ICP501	084E005001	IC PROTECTOR PRF-5000
⚠ ICP502	084702R702	IC PROTECTOR ICP-N75
MS401	1283200022	SILICON SHEET TC-30CG-TO-3P
MS501	1283200020	SILICON SHEET 3200020
OS101	0779010004	REMOTE RECEIVER GP-1U581X
PT501	126C000002	TERMINAL,PIN ST-0015
PT502	126C000002	TERMINAL,PIN ST-0015
⚠ RY101	0560710111	RELAY G5P-1-OR 9V
SP351	070A166001	SPEAKER CS1606T5106D-N
SP352	070A166001	SPEAKER CS1606T5106D-N
SP353	070A146005	SPEAKER CS12T5108C-N
TH501	D8R0F140M0	DEGAUSS ELE. PTH451C262BF140M270
TM001	076G013160	TRANSMITTER EUR-531160
⚠ TU001	0145611010	TUNER UHF-VHF TERE8-037A
⚠ V801	0981320601	COLOR PICTURE TUBE A76JTS90X10(ZW)
X101	1003T4R001	CERAMIC OSCILLATOR KBR-4.0MSTF
X251	1003R50001	CERAMIC OSCILLATOR KBR-500AH2
X401	1002R50004	CERAMIC OSCILLATOR CSB500F9
X601	10064R4306	CRYSTAL HC-49/U 4433.619KHZ
X851	100CA02702	CRYSTAL HC-49/U 27.0MHZ

RESISTOR
RC.....CARBON RESISTOR

CAPACITORS
CC.....CERAMIC CAPACITOR
CE.....ALUMI ELECTROLYTIC CAPACITOR
CP.....POLYESTER CAPACITOR
CPP.....POLYPROPYLENE CAPACITOR
CPL.....PLASTIC CAPACITOR
CMP.....METAL POLYESTER CAPACITOR
CMPL.....METAL PLASTIC CAPACITOR
CMPP.....METAL POLYPROPYLENE CAPACITOR
CST.....STYROL CAPACITOR

INTERCHANGEABLE PARTS LIST

NOTE:THE FOLLOWING PART(S) MAY BE SUBSTITUTED FOR PARTS INDICATED IN THE BASIC PART(S) LIST (WITH THE SAME REF.NO.). THESE PARTS SHARE THE SAME ELECTRICAL CHARACTERISTICS AND OTHER ELEMENTS FOR COMMON USAGE.
EITHER PART NUMBER MAY BE USED IN THIS UNIT.

REF.NO	DESCRIPTION (PART NO)	DESCRIPTION (PART NO)
CF703	EFCA4434BF (1011A4R401)	EFC-A4R43MB3 (101114R431)
CP405	005P-1100 (069W010020)	005P-2100 (069D010010)
⚠ R078	12K OHM 2 W (R3228A123J)	12K OHM 2 W (R3128A123J)
⚠ R079	47 OHM 1 W (R32181470J)	47 OHM 1 W (R31181470J)
⚠ R395	2.7 OHM 7 W (R5Y2CE2R7J)	2.7 OHM 7 W (R5A2CE2R7K)
⚠ R431	680 OHM 1 W (R32181681J)	680 OHM 1 W (R31181681J)
⚠ R436	1.5K OHM 3 W (R3228B152J)	1.5K OHM 3 W (R3128B152J)
⚠ R437	1.5K OHM 3 W (R3228B152J)	1.5K OHM 3 W (R3128B152J)
⚠ R439	3.3 OHM 7 W (R5Y2CE3R3J)	3.3 OHM 7 W (R5A2CE3R3K)
⚠ R441	390 OHM 1 W (R32281391J)	390 OHM 1 W (R31281391J)
⚠ R456	2.2 OHM 1/4W (R615842R2J)	2.2 OHM 1/4W (R635842R2J)
⚠ R502	4.7 OHM 15 W (R5Y2CG4R7J)	4.7 OHM 15 W (R5A2CG4R7K)
⚠ R507	47K OHM 2 W (R3218A473J)	47K OHM 2 W (R3118A473J)
⚠ R512	0.33 OHM 1 W (R32181R33J)	0.33 OHM 1 W (R31181R33J)
⚠ R513	0.39 OHM 1 W (R32181R39J)	0.39 OHM 1 W (R31181R39J)
⚠ R514	15 OHM 2 W (R3228A150J)	15 OHM 2 W (R3128A150J)
⚠ R805	39K OHM 1 W (R32181393J)	39K OHM 1 W (R31181393J)
⚠ R806	8.2K OHM 2 W (R3218A822J)	8.2K OHM 2 W (R3118A822J)
⚠ R813	39K OHM 1 W (R32181393J)	39K OHM 1 W (R31181393J)
⚠ R814	8.2K OHM 2 W (R3218A822J)	8.2K OHM 2 W (R3118A822J)
⚠ R821	39K OHM 1 W (R32181393J)	39K OHM 1 W (R31181393J)
⚠ R822	8.2K OHM 2 W (R3218A822J)	8.2K OHM 2 W (R3118A822J)
⚠ R826	22K OHM 2 W (R3218A223J)	22K OHM 2 W (R3118A223J)
⚠ R827	22K OHM 2 W (R3218A223J)	22K OHM 2 W (R3118A223J)
⚠ R828	22K OHM 2 W (R3218A223J)	22K OHM 2 W (R3118A223J)
SW401	SS-22F16G7 (0510B22001)	SS-009-7H (0510422001)